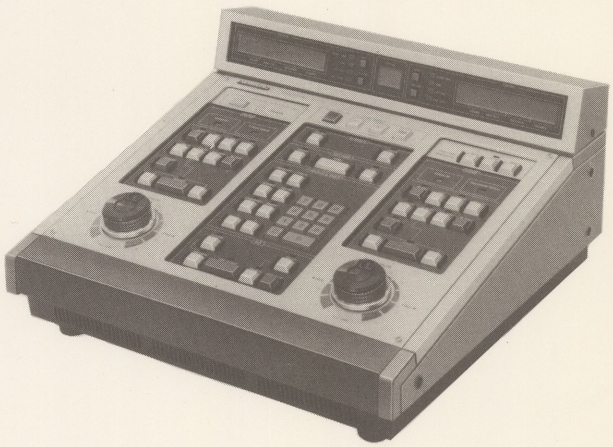
ORDER NO. VRD-8006-406

Service Manual

Editing Controller

AU-A70

Adjustment Procedures
Schematic Diagrams
Exploded Views
Replacement Parts List



SPECIFICATIONS

Power Source:	AC 100/120/220/240 V (Selectable), 50/60 Hz
Power Consumption:	Approx. 65 W
Controls:	
Playback-Unit Side:	Record [REC], playback unit-1 [VTR 1], playback unit-2 [VTR 2], line [LINE]
Editor-Unit Side:	Record [REC], edit [EDIT], cut-in [CUT IN], cut-out [CUT OUT]
Playback-Unit/ Editor-Unit:	Fast-forward [FF], playback [PLAY], rewind [REW], stop [STOP], pause [PAUSE], search [SEARCH], Step-Advance Plus [+], Step-Advance Minus [−], Search Dial
Editing Controls:	
Editing Models:	Assembly [ASSY], insert [CH1, CH2, VIDEO]
Editing Reference:	Playback-unit reference [SOURCE], editor-unit reference [EDITOR]
Program Keyboard:	Program number [PROGRAM], check [CHECK], source [SOURCE], editor [EDITOR], exchange [EXCHANGE], insert [INSERT], time-shift plus [+], time-shift minus [−] numeric keyboard
Control Names:	Preview [PREVIEW], edit start [EDIT START], edit stop [EDIT STOP], review [REVIEW], return [RETURN], go-to [GO TO]
Edit Point Entry:	Entry [ENTRY], reset [RESET], exit [EXIT]
Time-Code Entry Controls:	Time-code reset [RESET], Time-code start [START], Time-code hold [HOLD]
Counter Display:	
Time Indication:	Maximum ±9 hr. 59 min. 59 sec. 29 frames [both (playback/editor) units]
Lap-Time Indication:	Maximum ±9 hr. 59 min. 59 sec. 29 frames [both (playback/editor) units]
Counter display selection:	Entry time indication/exit time indication, time indication/lap time indication
Edit Number Display:	
Edit Number Indication:	Maximum 99
Programmable Edit Number Indication:	Maximum 20 pre-programmed edits
Compatible VTR units:	Basic system: AU-700, NV-9600, NV-9240
	Limited system: NV-9500(A), NV-9200(A) NV-8200, NV-8170
Connection Capability (no of Units):	Source: 2 Playback unit, 1 line Editor: 1 Editor unit
Connectors:	
Power Terminal:	3-pin connector
Remote-Control Terminal:	34-pin Remote control cable connector (playback unit-1/playback unit-2/editor unit/multiple source adaptor)
Input:	Sync input: BNC connector (multiple source adaptor), 4.0 Vp-p negative pulse, 75Ω unbalanced Time code: RCA pin jack [both, (playback unit-1/editor)], more than 1.0 Vp-p, High Impedance
Output:	Time code: RCA pin jack [both, (playback unit-1/editor)], 3.0 Vp-p, Low Impedance
Editing Precision:	±2 frames (used with AU-700/NV-9600/ NV-9240)
Operating Temperature:	41°F ~ 104°F (5°C ~ 40°C)
Operating Humidity:	35% ~ 80%
Weight:	31.9 lbs. (14.5 kg)
Dimensions:	17-1/8"(W) × 9-1/4"(H) × 17"(D) 432(W) × 233(H) × 430(D) mm
Standard Accessories (Included):	1 pc. AC power cord, VJA0129 2 pcs. 34-pin Remote control cables, VJA0149, Approx. 16.4 ft (5 m) 1 pc. Dust cover, VFB0003

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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ADJUSTMENT PROCEDURES

1. Test Equipment

   VTVM (Vacuum Tube Volt Meter)
   Voltage Range : 0.005 ∿ 50V

2. Power Supply Circuit

   Before adjusting the Power Supply Circuit, always check the AC input voltage (120V AC).
   All controls and test points are located on the Power Supply Circuit Board (VEP2139A)

   2-1 DC +5V Adjustment

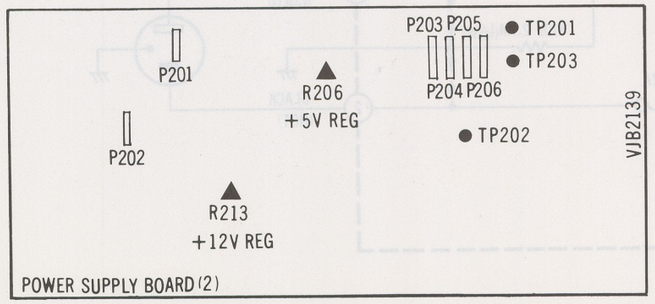
   Test Point: TP201
   Adjustment: R206 (+5V REG)

   1. Disconnect the load supply connector, P201, P203, P204, P205 and P206.
   2. Connect a 2.5Ω (15W) resistor between P204-1 and P204-3.
   3. Connect a VTVM to TP201
   4. Adjust the +5V REG ADJ (R206) for +5.1V ± 0.1V.

   2-2 DC +12V Adjustment

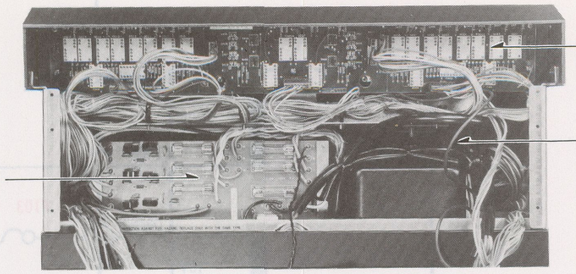
   Test Point: TP202
   Adjustment: R213 (+12V REG)

   1. Disconnect the load supply connector, P201, P203, P204 P205 and P206.
   2. Connect a 24Ω (10W) resistor between P204-3 and P204-8.
   3. Connect a VTVM to TP202.
   4. Adjust the +12V REG (R213) for +12V ± 0.1V.

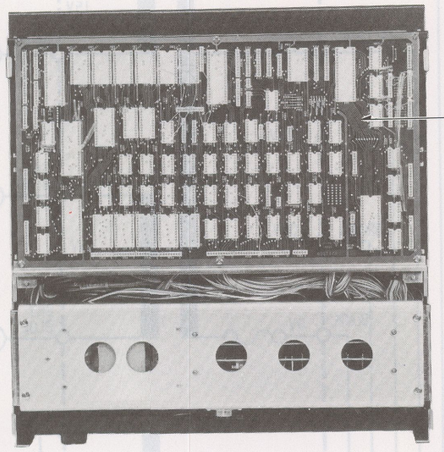


CIRCUIT BOARD LAYOUT

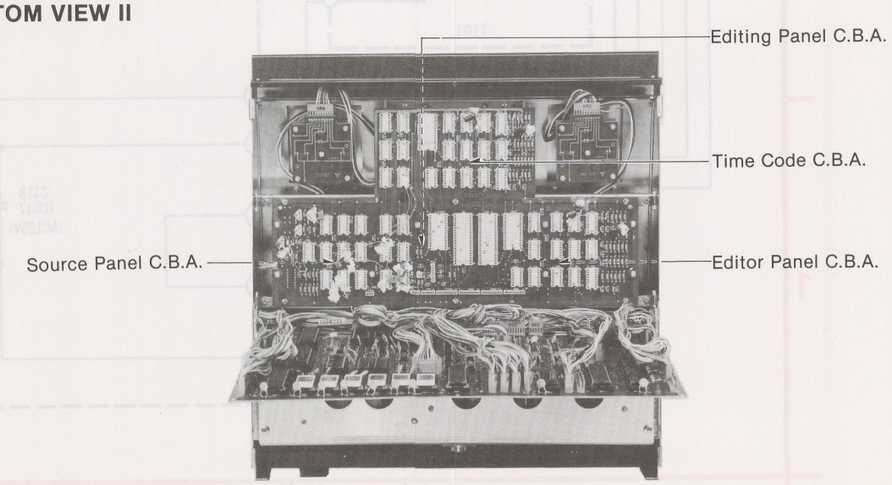
REAR VIEW



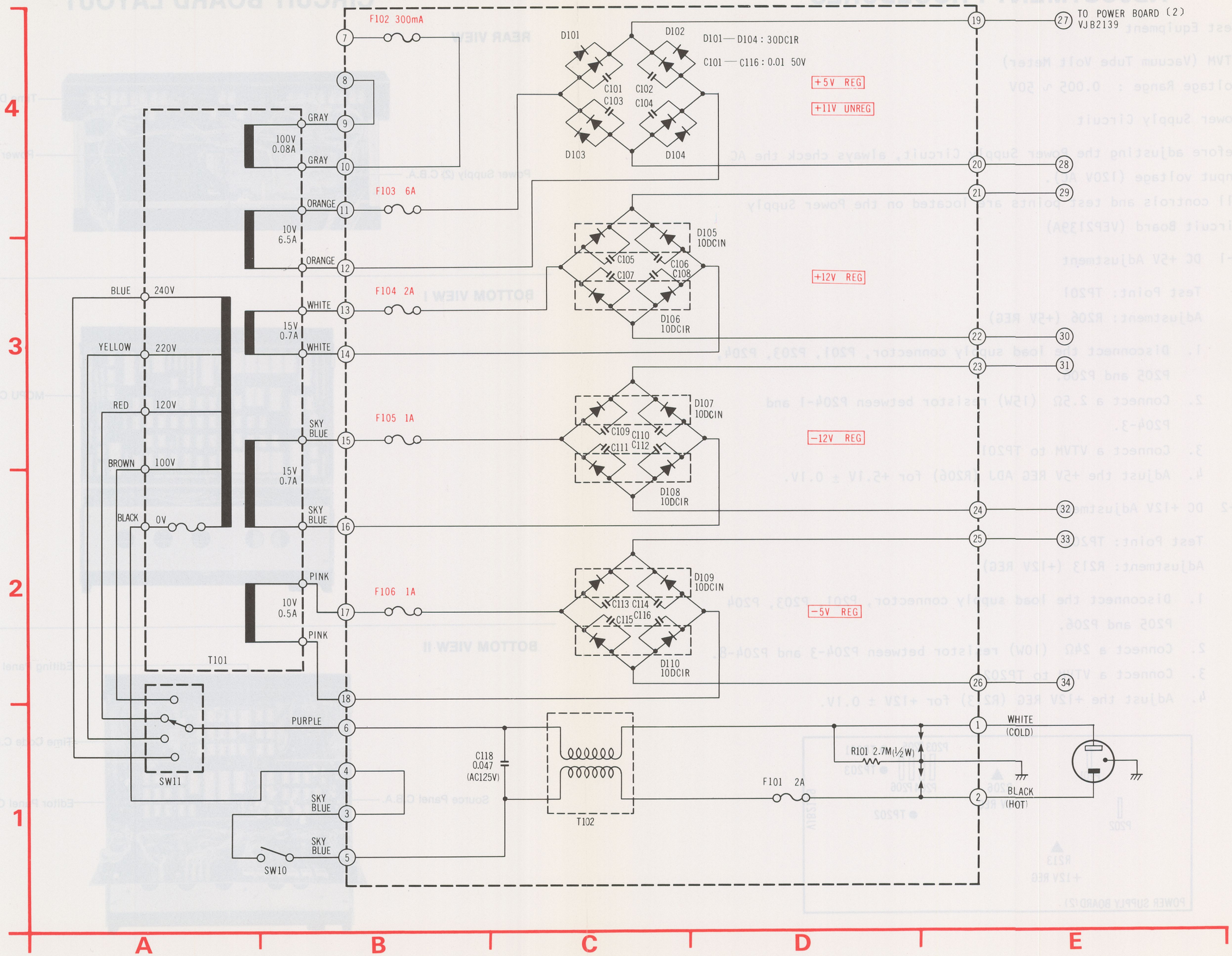
BOTTOM VIEW I



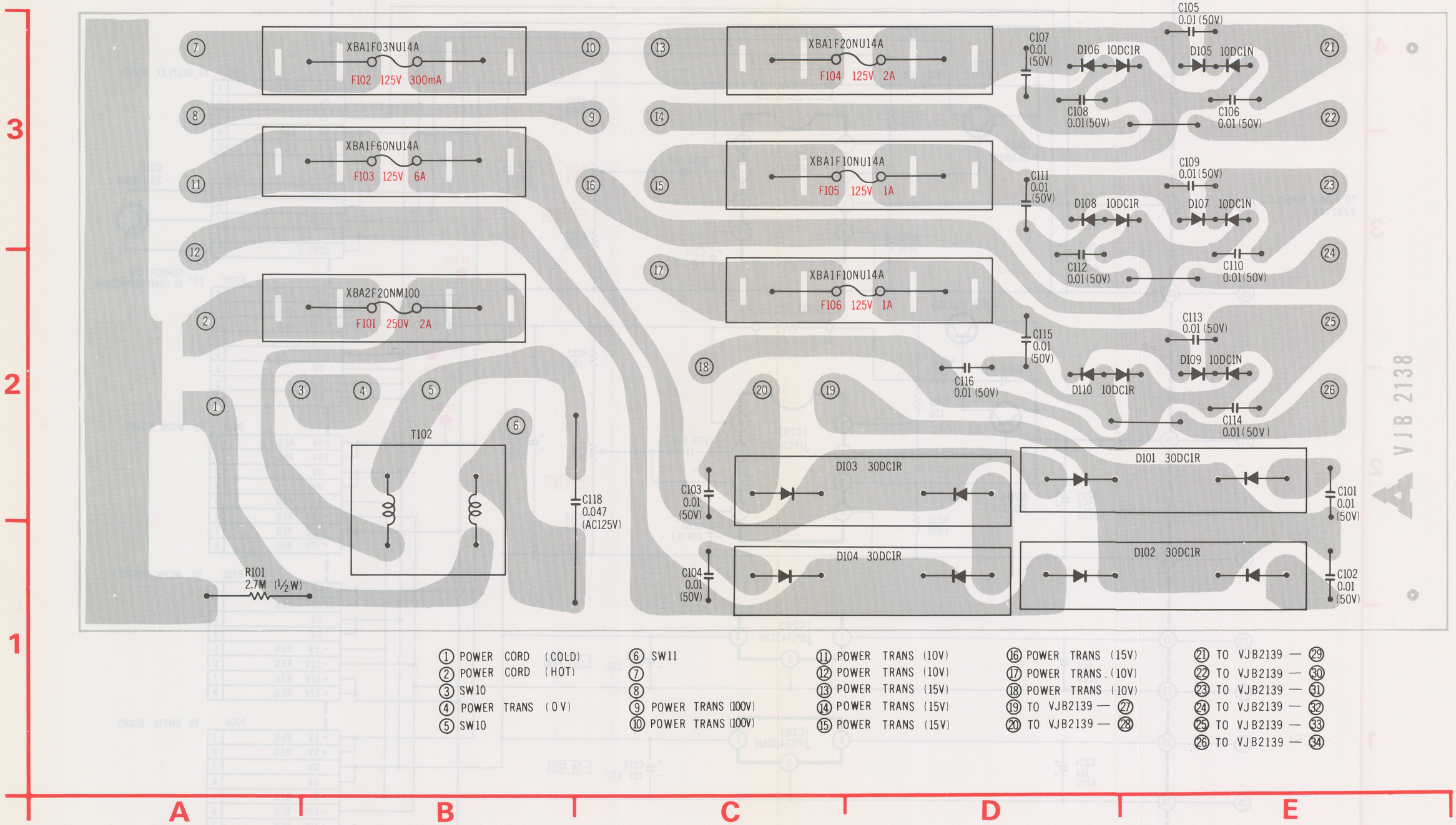
BOTTOM VIEW II



POWER SUPPLY (1) SCHEMATIC DIAGRAM

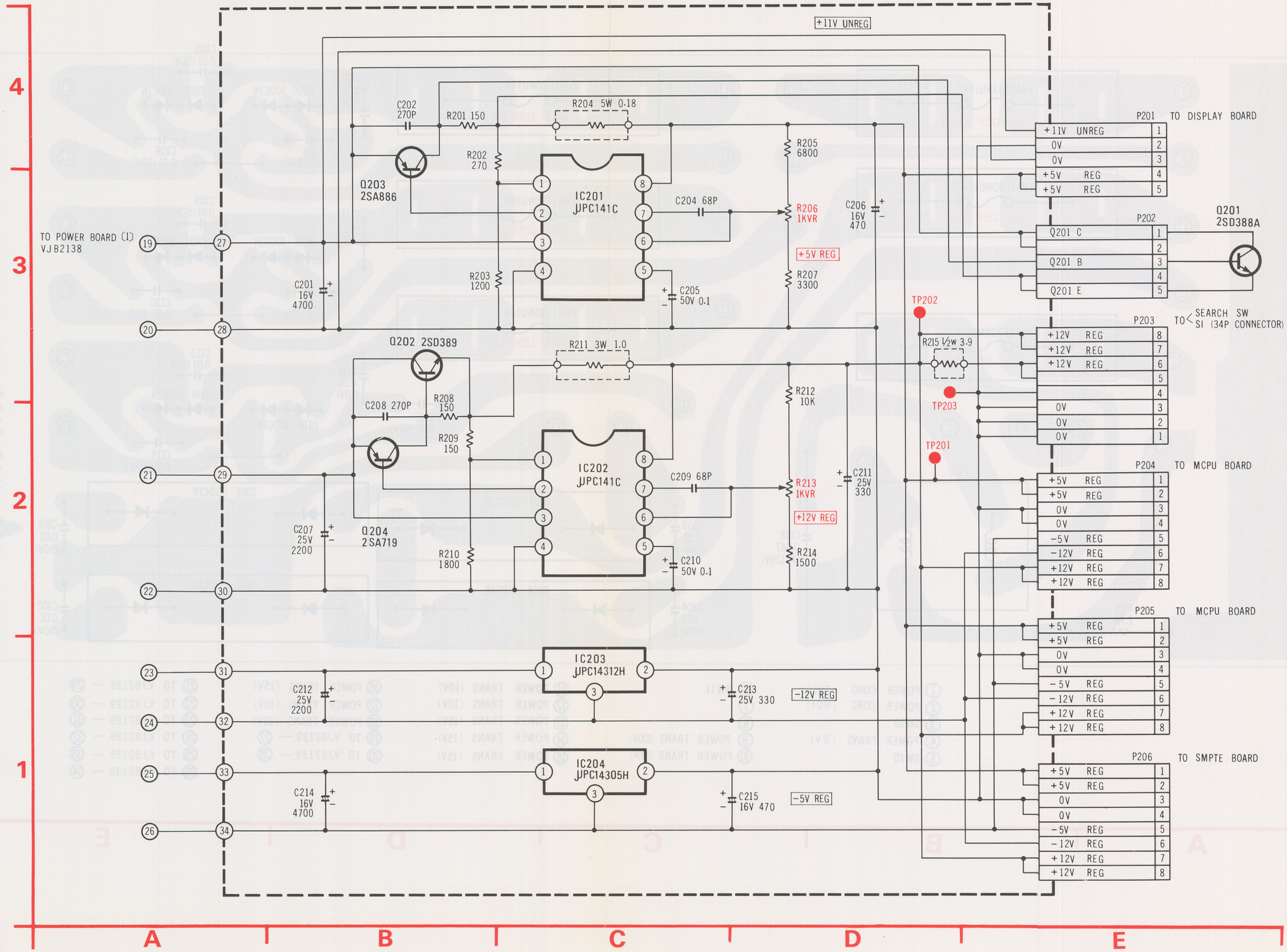


POWER SUPPLY (1) CIRCUIT BOARD (VEP2138A)

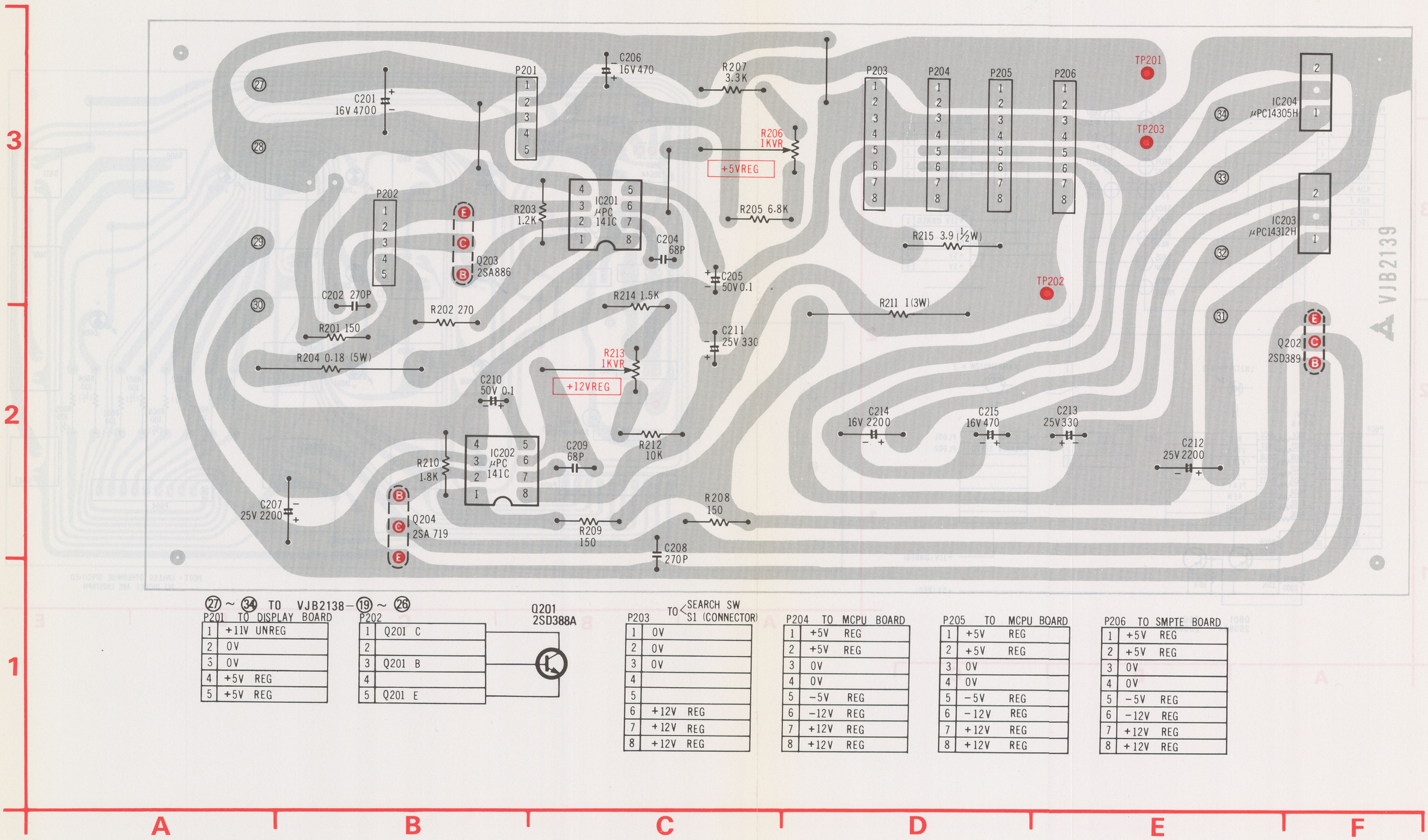


① POWER CORD (COLD)
② POWER CORD (HOT)
③ SW10
④ POWER TRANS (0V)
⑤ SW10
⑥ SW11
⑦
⑧
⑨ POWER TRANS (100V)
⑩ POWER TRANS (100V)
⑪ POWER TRANS (10V)
⑫ POWER TRANS (10V)
⑬ POWER TRANS (15V)
⑭ POWER TRANS (15V)
⑮ POWER TRANS (15V)
⑯ POWER TRANS (15V)
⑰ POWER TRANS (10V)
⑱ POWER TRANS (10V)
⑲ TO VJB2139 — ㉗
⑳ TO VJB2139 — ㉘
㉑ TO VJB2139 — ㉙
㉒ TO VJB2139 — ㉚
㉓ TO VJB2139 — ㉛
㉔ TO VJB2139 — ㉜
㉕ TO VJB2139 — ㉝
㉖ TO VJB2139 — ㉞

POWER SUPPLY (2) SCHEMATIC DIAGRAM



POWER SUPPLY (2) CIRCUIT BOARD (VEP2139A)



㉗ ~ ㉞ TO VJB2138 – ⑲ ~ ㉖

P201 TO DISPLAY BOARD

1	+11V UNREG
2	0V
3	0V
4	+5V REG
5	+5V REG

P202

1	Q201 C
2	
3	Q201 B
4	
5	Q201 E

Q201 2SD388A

P203 TO SEARCH SW S1 (CONNECTOR)

1	0V
2	0V
3	0V
4	
5	
6	+12V REG
7	+12V REG
8	+12V REG

P204 TO MCPU BOARD

1	+5V REG
2	+5V REG
3	0V
4	0V
5	−5V REG
6	−12V REG
7	+12V REG
8	+12V REG

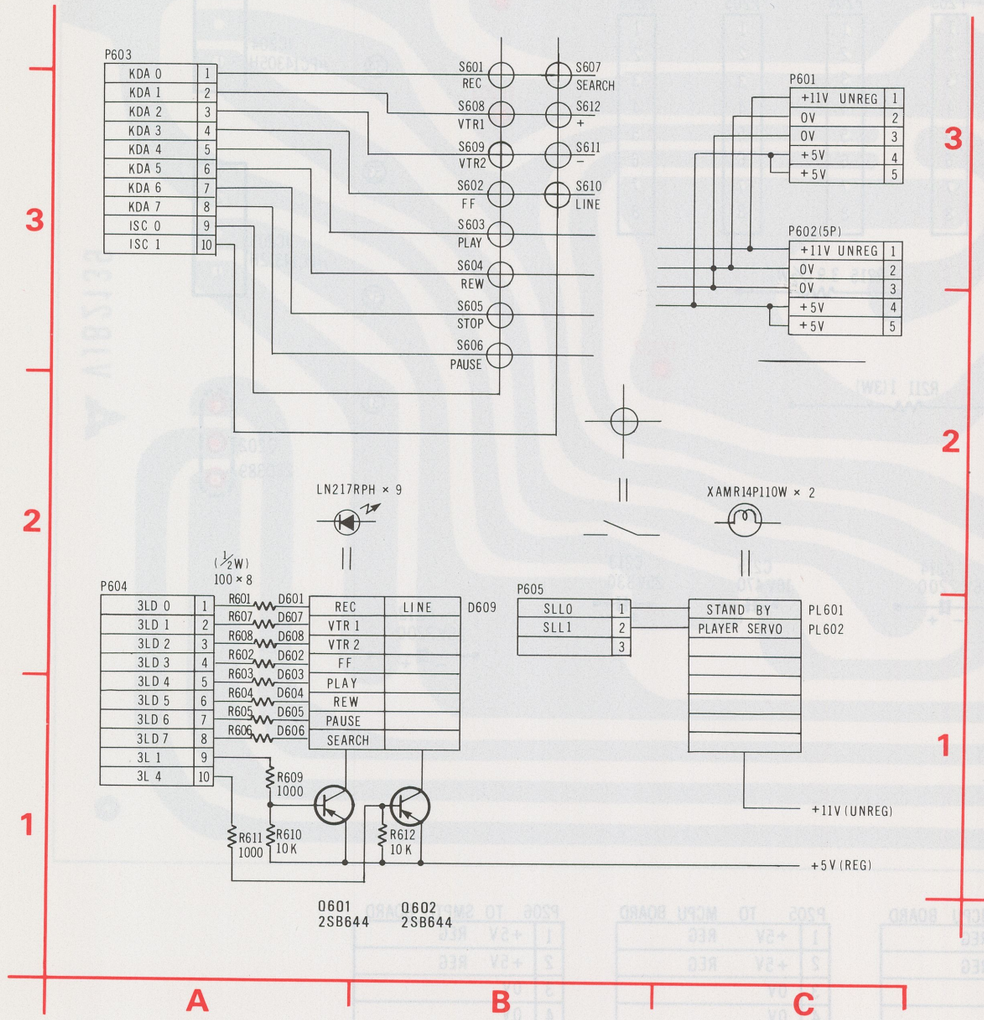
P205 TO MCPU BOARD

1	+5V REG
2	+5V REG
3	0V
4	0V
5	−5V REG
6	−12V REG
7	+12V REG
8	+12V REG

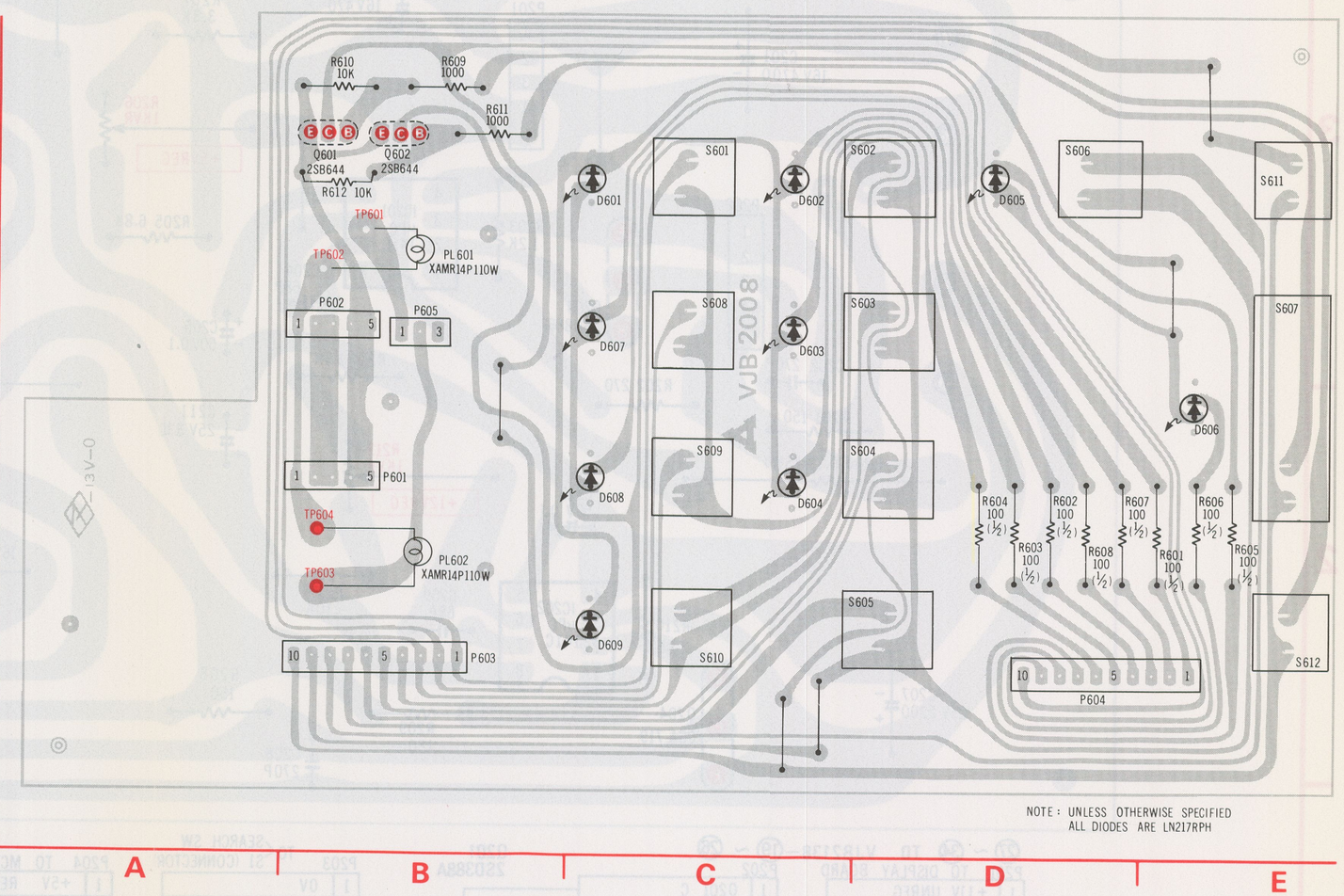
P206 TO SMPTE BOARD

1	+5V REG
2	+5V REG
3	0V
4	0V
5	−5V REG
6	−12V REG
7	+12V REG
8	+12V REG

SOURCE PANEL SCHEMATIC DIAGRAM

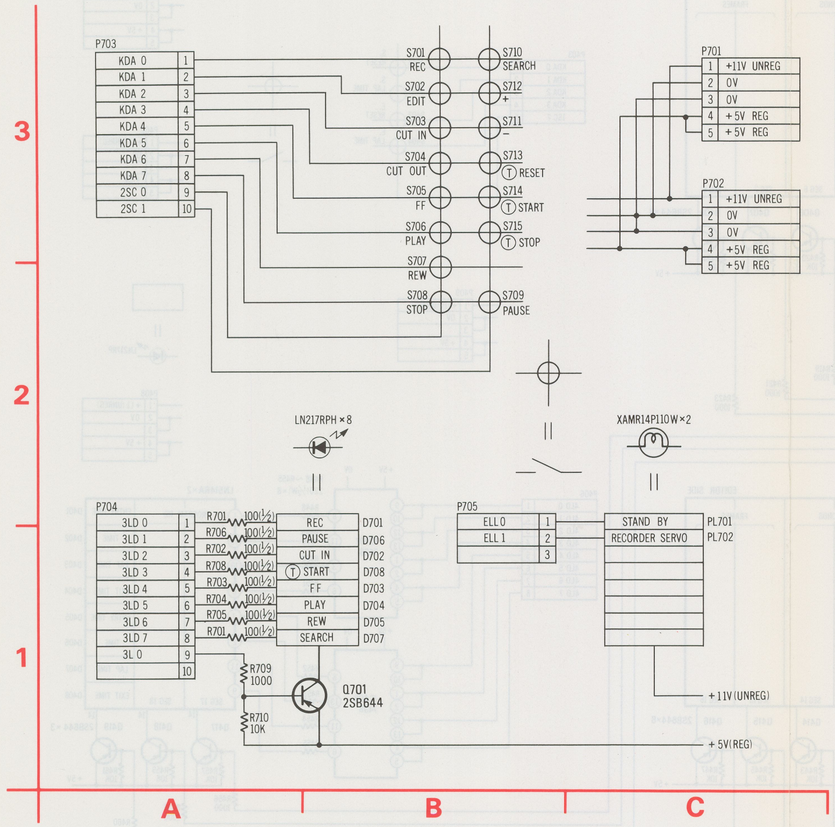


SOURCE PANEL CIRCUIT BOARD (VEP2008B)

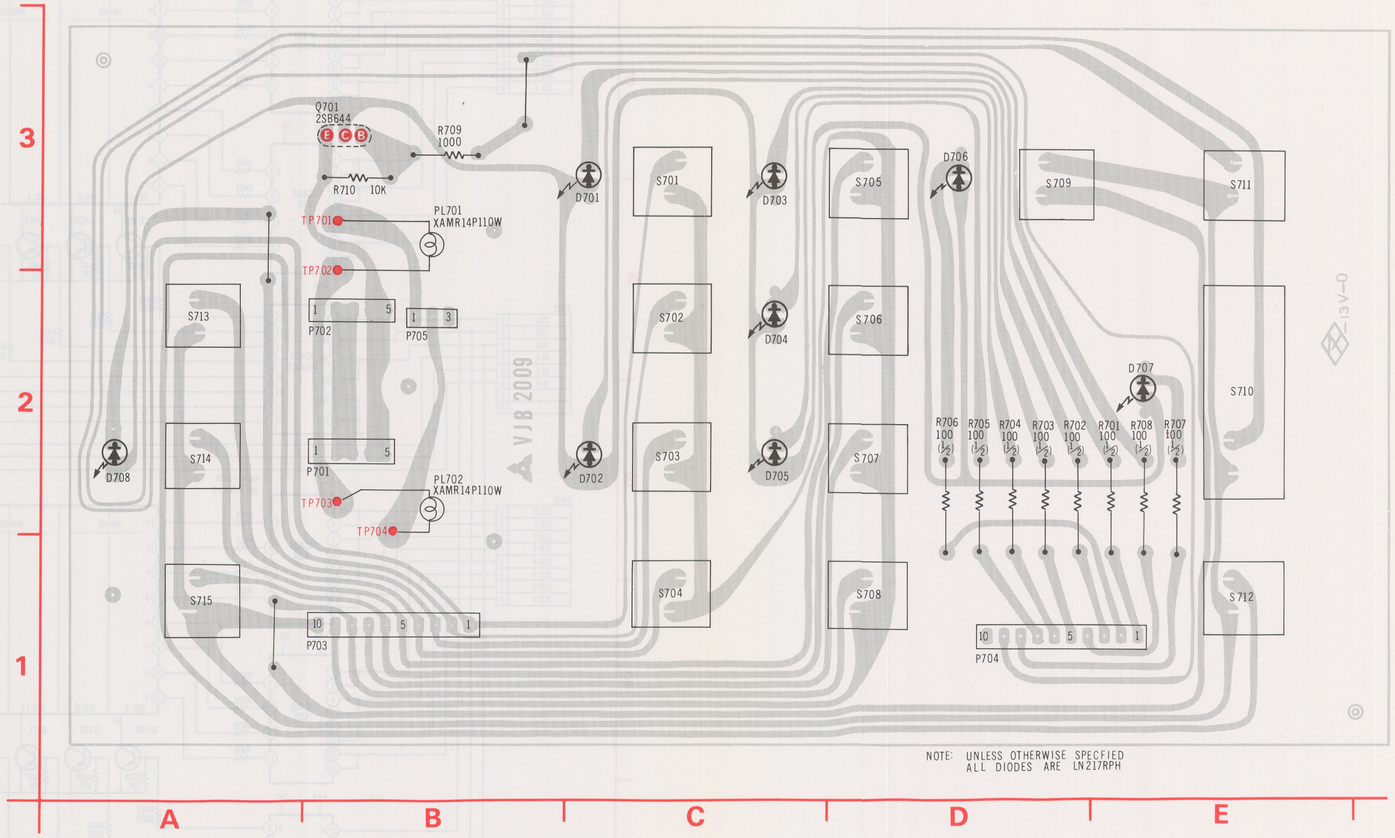


NOTE : UNLESS OTHERWISE SPECIFIED
ALL DIODES ARE LN217RPH

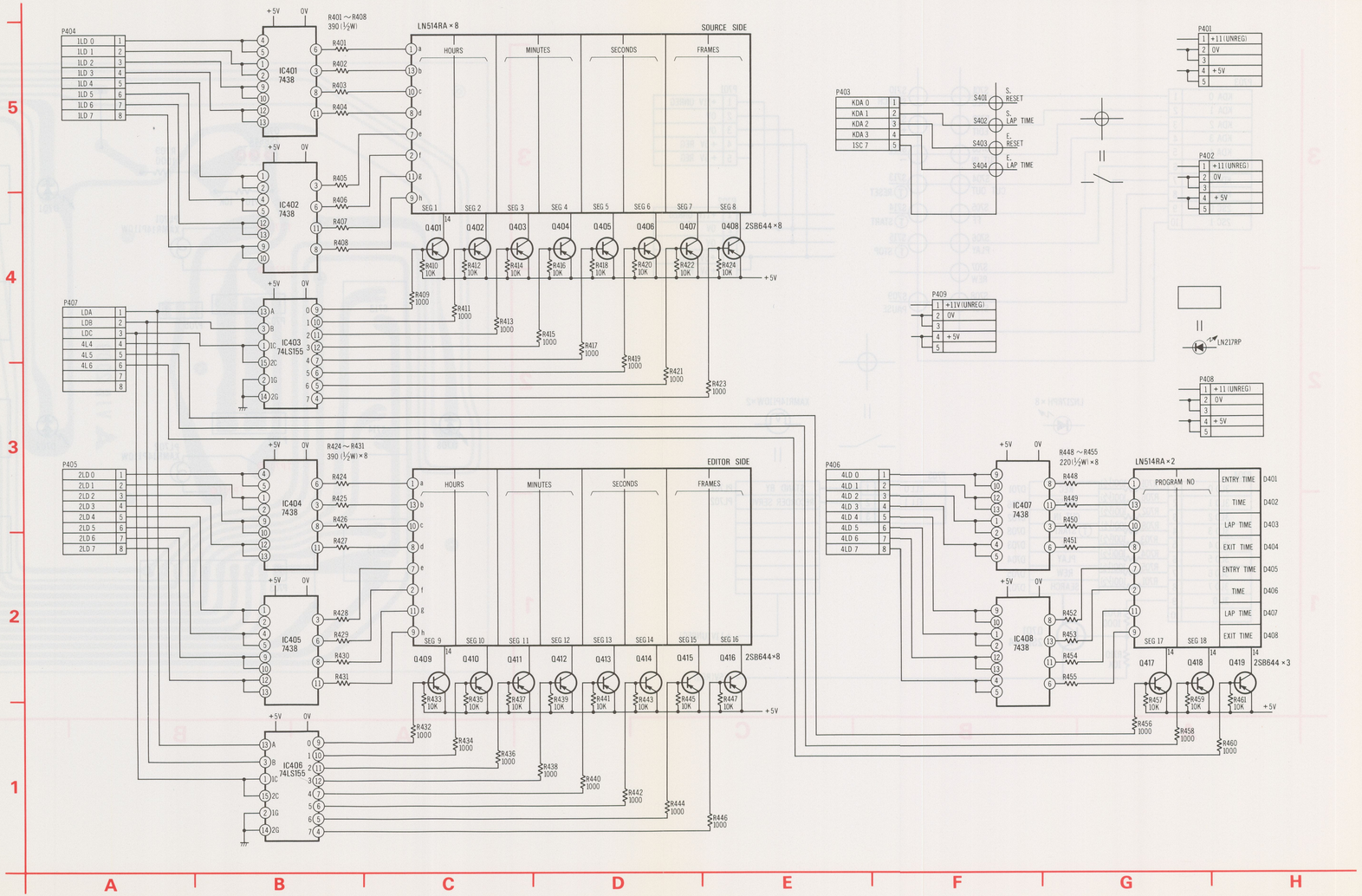
EDITOR PANEL SCHEMATIC DIAGRAM



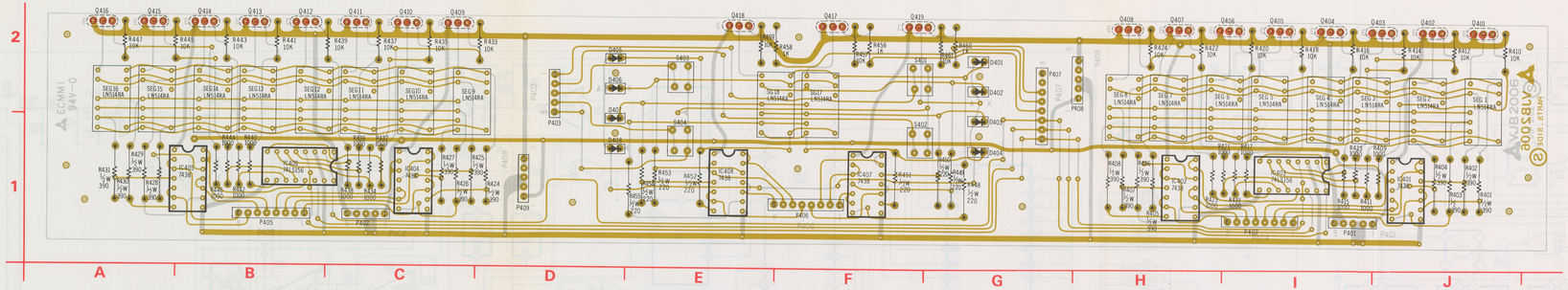
EDITOR PANEL CIRCUIT BOARD (VEP2009B)



TIME DISPLAY SCHEMATIC DIAGRAM

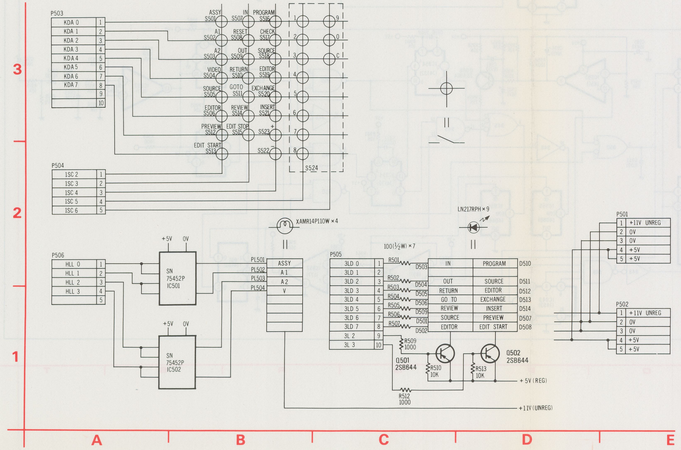


TIME DISPLAY CIRCUIT BOARD (VEP2006B)

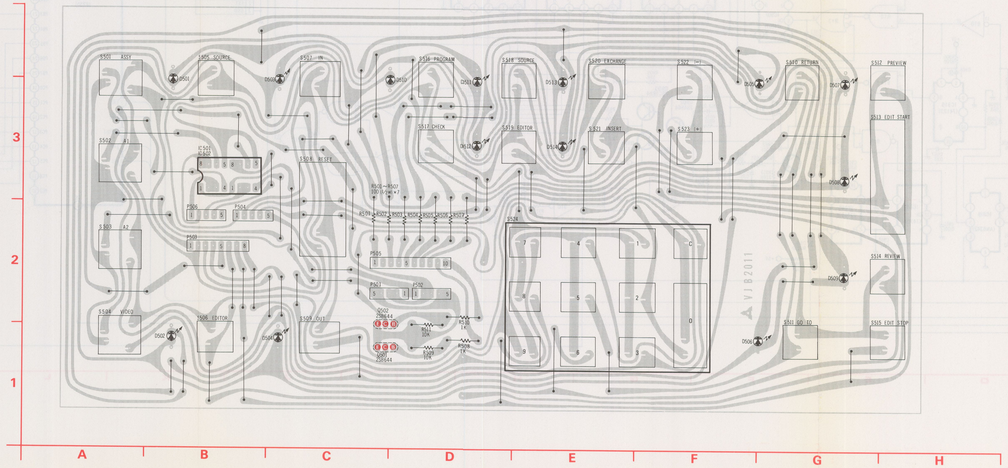


Time Disply C.B.A.	
Q401	J-2
Q402	J-2
Q403	I-2
Q404	I-2
Q405	I-2
Q406	I-2
Q407	I-2
Q408	I-2
Q409	C-2
Q410	C-2
Q411	C-2
Q412	B-2
Q413	B-2
Q414	B-2
Q415	A-2
Q416	A-2
Q417	F-2
Q418	E-2
Q419	G-2
IC1	J-1
IC2	H-1
IC3	I-1
IC4	C-1
IC5	A-1
IC6	B-1
IC7	F-1
IC8	E-1

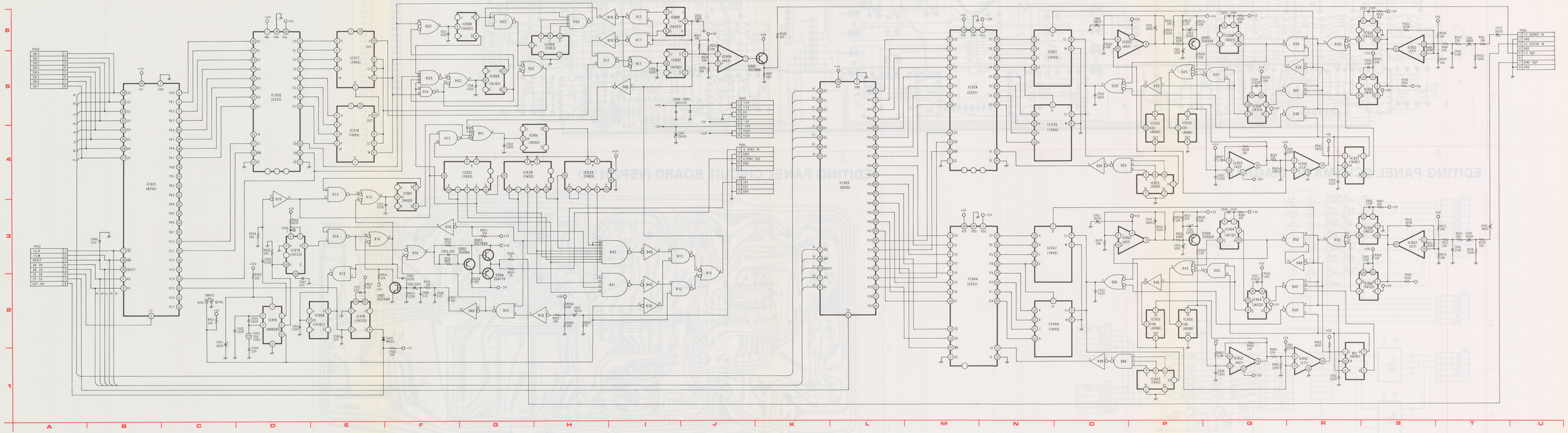
EDITING PANEL SCHEMATIC DIAGRAM



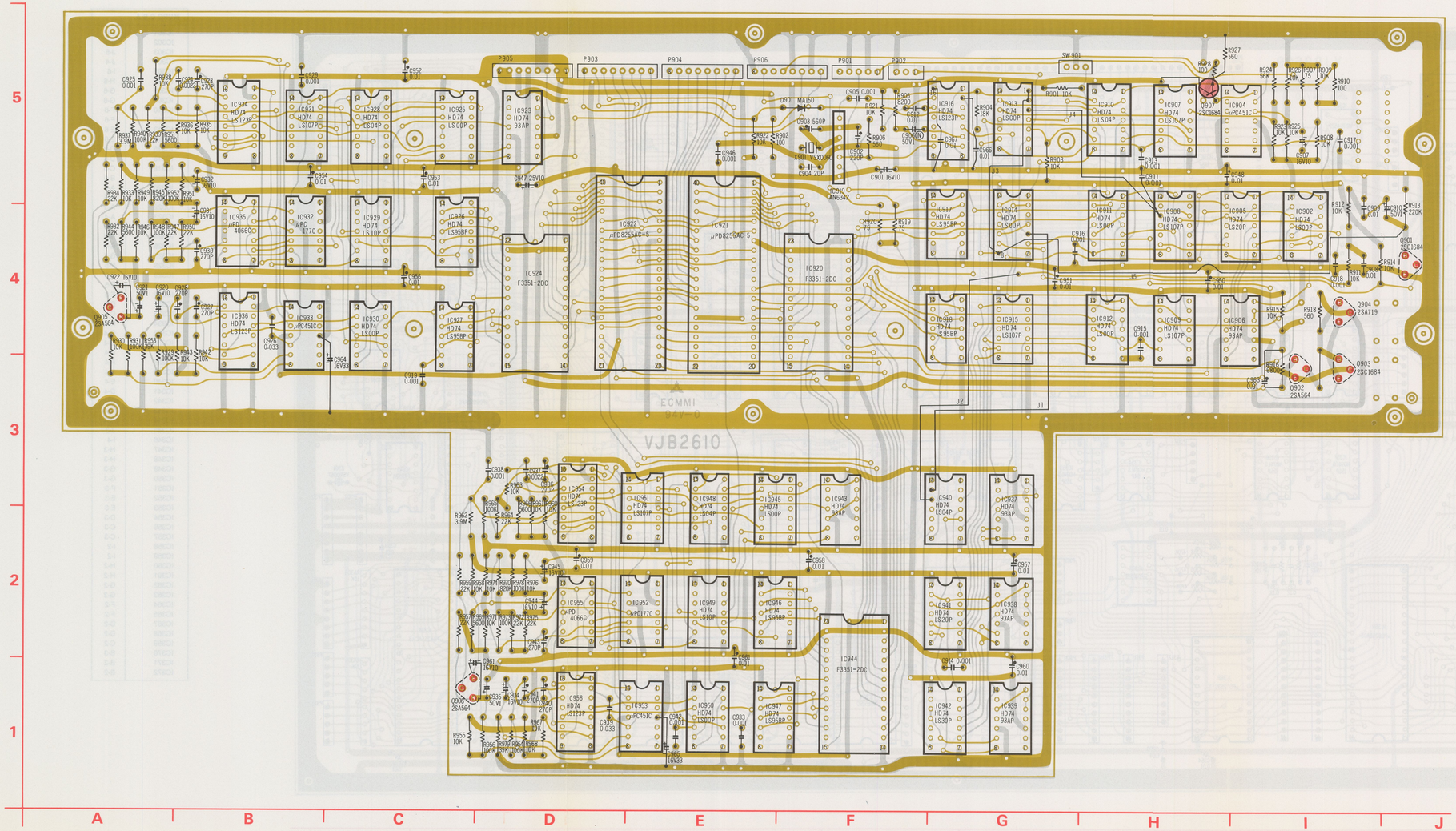
EDITING PANEL CIRCUIT BOARD (VEP2011A)



TIME CODE SCHEMATIC DIAGRAM

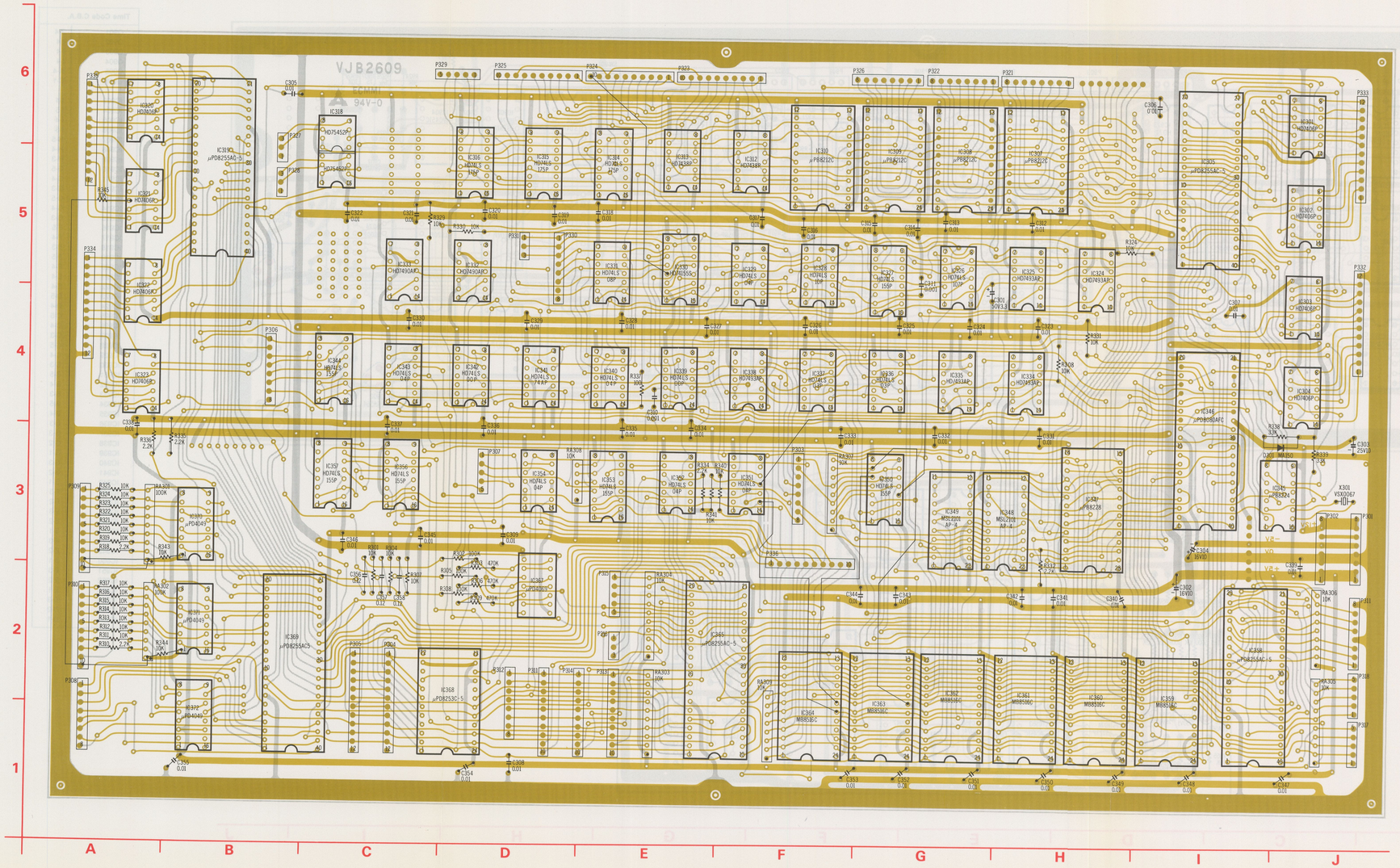


TIME CODE CIRCUIT BOARD (VEP2610A)



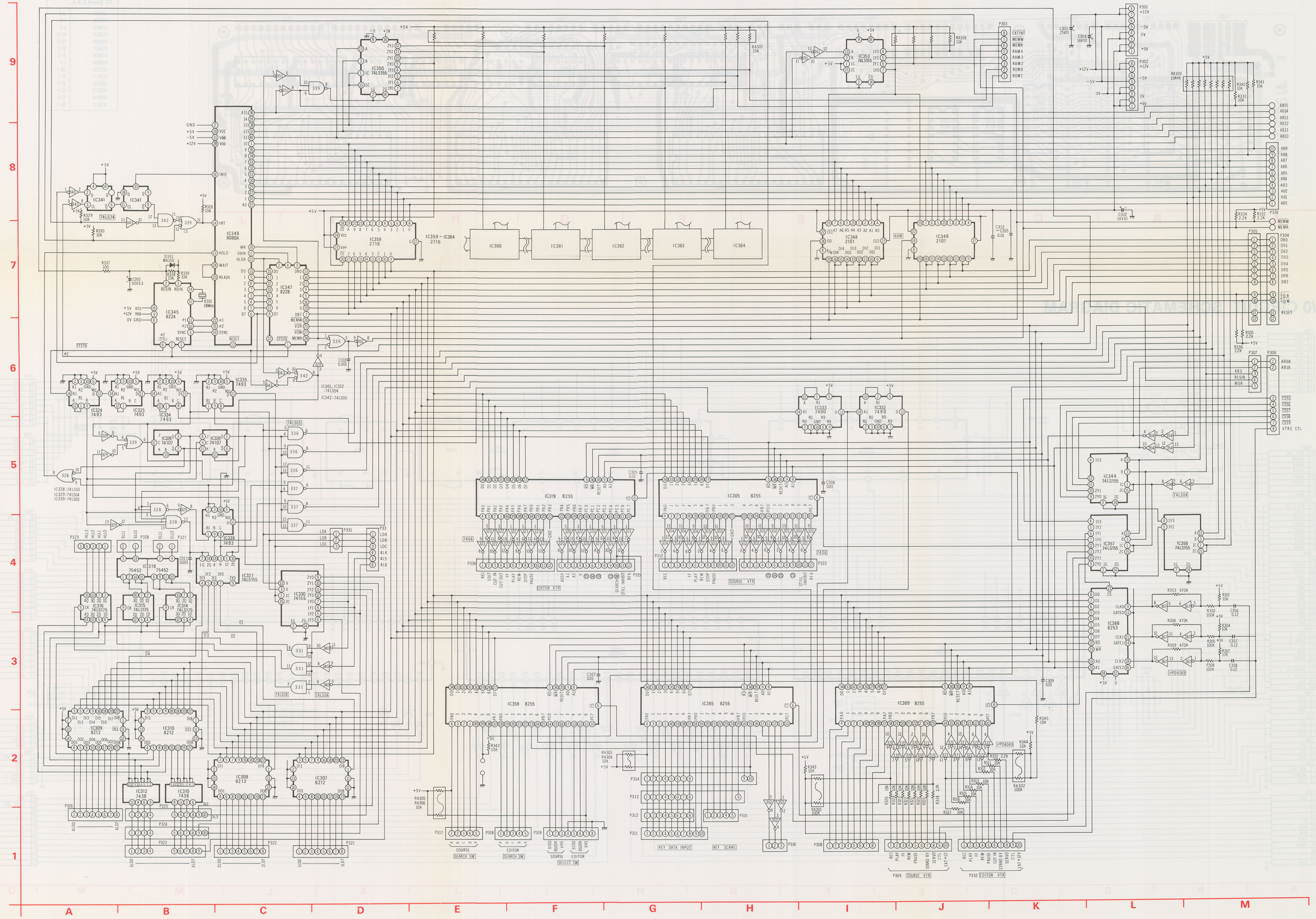
Time Code C.B.A.	
Q901	J-4
Q902	I-4
Q903	I-4
Q904	I-4
Q905	A-4
Q906	C-1
IC902	I-4
IC904	I-5
IC905	I-4
IC906	I-3
IC907	H-5
IC908	H-4
IC909	H-3
IC910	G-5
IC911	G-4
IC912	G-3
IC913	G-5
IC914	G-4
IC915	G-3
IC916	F-5
IC917	F-4
IC918	F-3
IC919	F-5
IC920	F-4
IC921	E-4
IC922	E-4
IC923	D-5
IC924	D-4
IC925	C-5
IC926	C-4
IC927	C-3
IC928	C-5
IC929	C-4
IC930	C-3
IC931	B-5
IC932	B-4
IC933	B-3
IC934	B-5
IC935	B-4
IC936	B-3
IC937	G-3
IC938	G-2
IC939	G-1
IC940	G-3
IC941	G-2
IC942	G-1
IC943	F-3
IC944	F-2
IC945	E-3
IC946	E-2
IC947	E-1
IC948	E-3
IC949	E-2
IC950	E-1
IC951	E-3
IC952	E-2
IC953	E-1
IC954	D-3
IC955	D-2
IC956	D-1

MCPU CIRCUIT BOARD (VEP2609B)

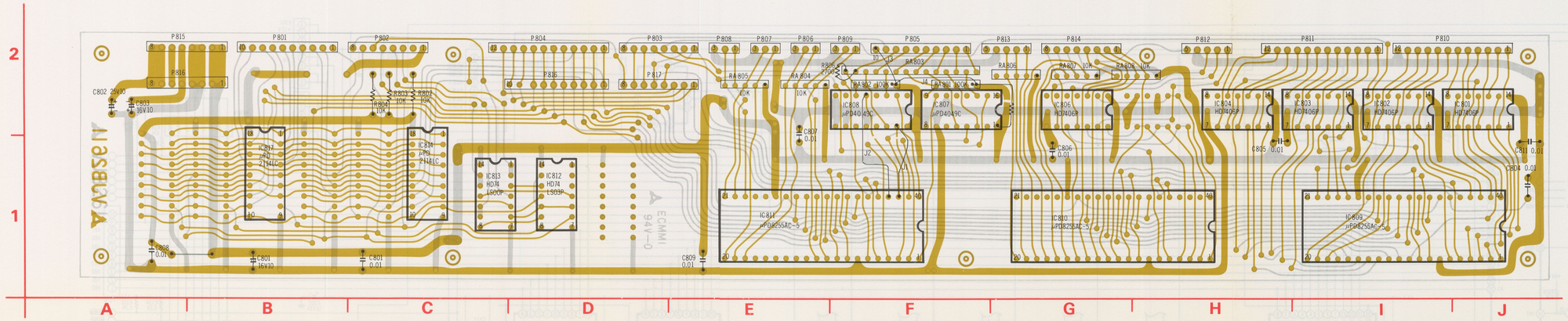


MUPC C.B.A.	
IC301	J-6
IC302	J-5
IC303	J-5
IC304	J-4
IC305	I-6
IC307	H-6
IC308	G-6
IC309	G-6
IC310	F-6
IC312	F-6
IC313	E-6
IC314	E-6
IC315	D-6
IC316	D-6
IC318	C-6
IC319	B-6
IC320	A-6
IC321	A-5
IC322	A-5
IC323	A-4
IC324	H-5
IC325	H-5
IC326	G-5
IC327	G-5
IC328	F-5
IC329	F-5
IC330	E-5
IC331	E-5
IC332	D-5
IC333	C-5
IC334	H-4
IC335	G-4
IC336	G-4
IC337	F-4
IC338	F-4
IC339	E-4
IC340	E-4
IC341	D-4
IC342	D-4
IC343	C-4
IC344	C-4
IC345	J-3
IC346	I-4
IC347	H-3
IC348	H-3
IC349	G-3
IC350	G-3
IC351	F-3
IC352	E-3
IC353	E-3
IC354	D-3
IC356	C-3
IC357	C-3
IC358	I-2
IC359	I-2
IC360	H-2
IC361	H-2
IC362	G-2
IC363	G-2
IC364	F-2
IC365	F-2
IC367	D-2
IC368	D-2
IC369	C-2
IC370	B-3
IC371	B-2
IC372	B-2

MCPU SCHEMATIC DIAGRAM

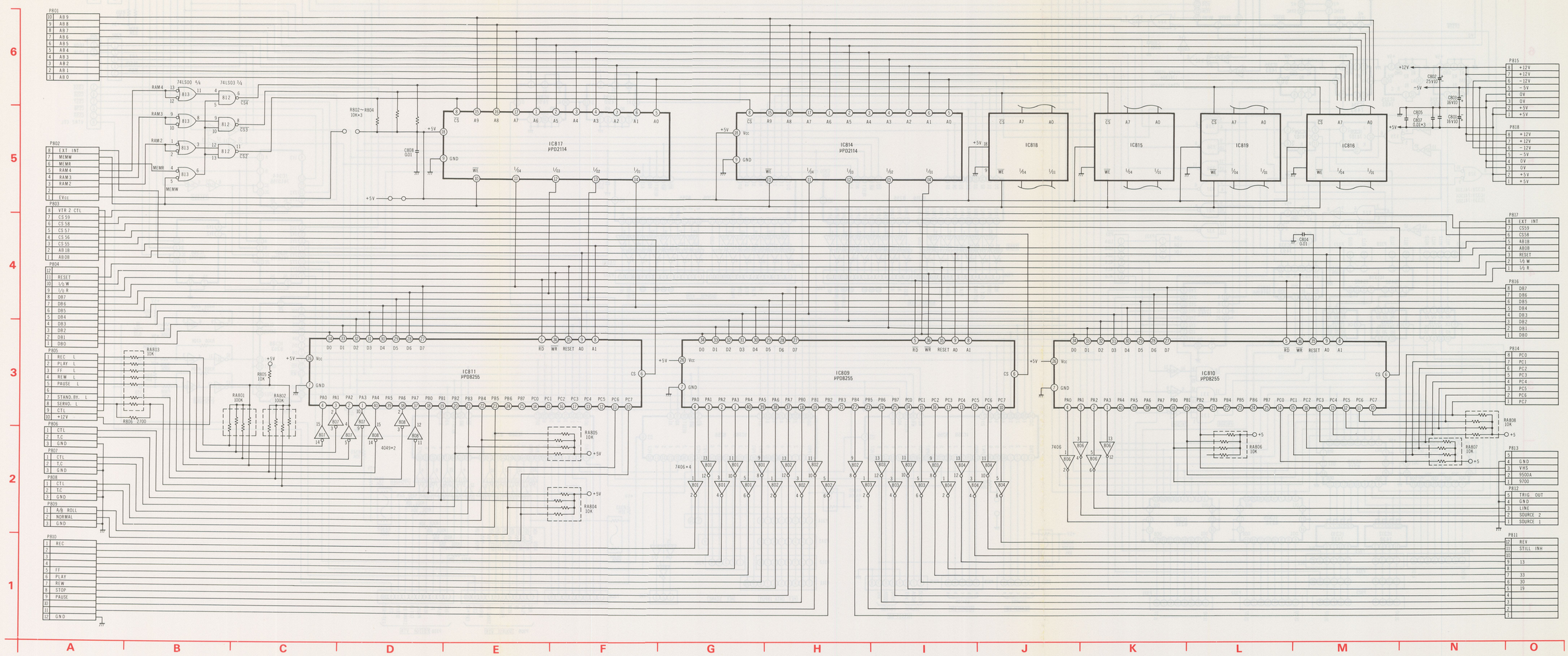


I/0 CIRCUIT BOARD (VEP2611A)

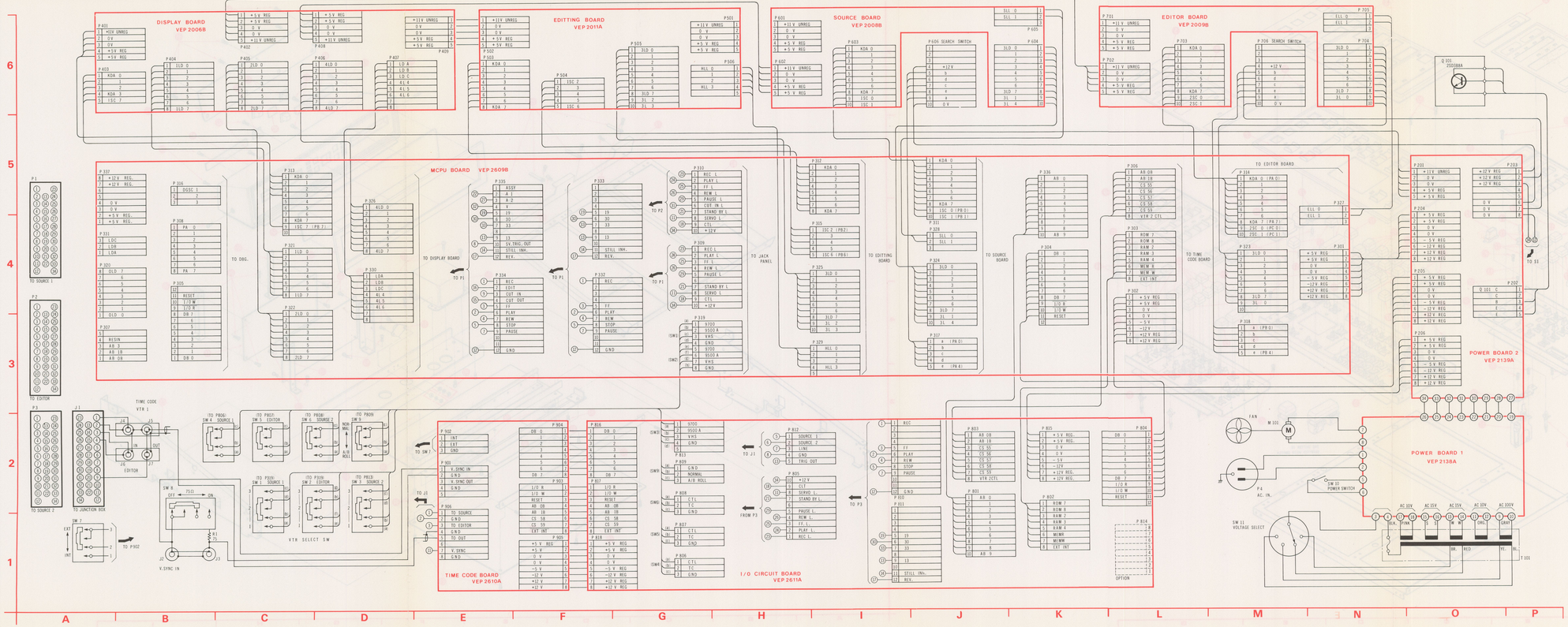


I/O Board C.B.A.	
IC801	J-2
IC802	I-2
IC803	I-2
IC804	H-2
IC806	G-2
IC807	F-2
IC808	F-2
IC809	I-1
IC810	G-1
IC811	E-1
IC812	D-1
IC813	C-1
IC814	C-1
IC817	B-1

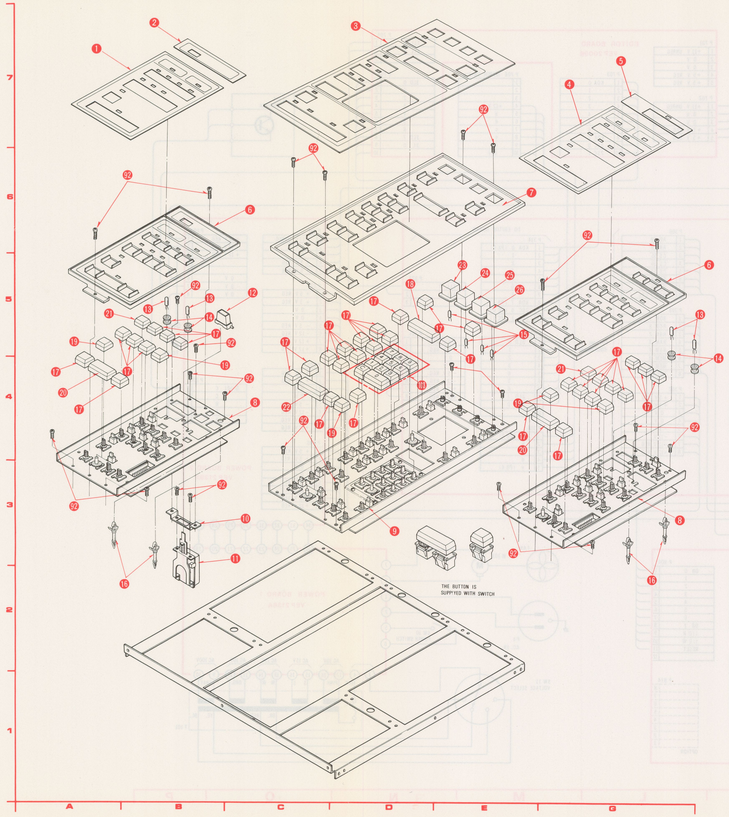
I/0 CIRCUIT SCHEMATIC DIAGRAM



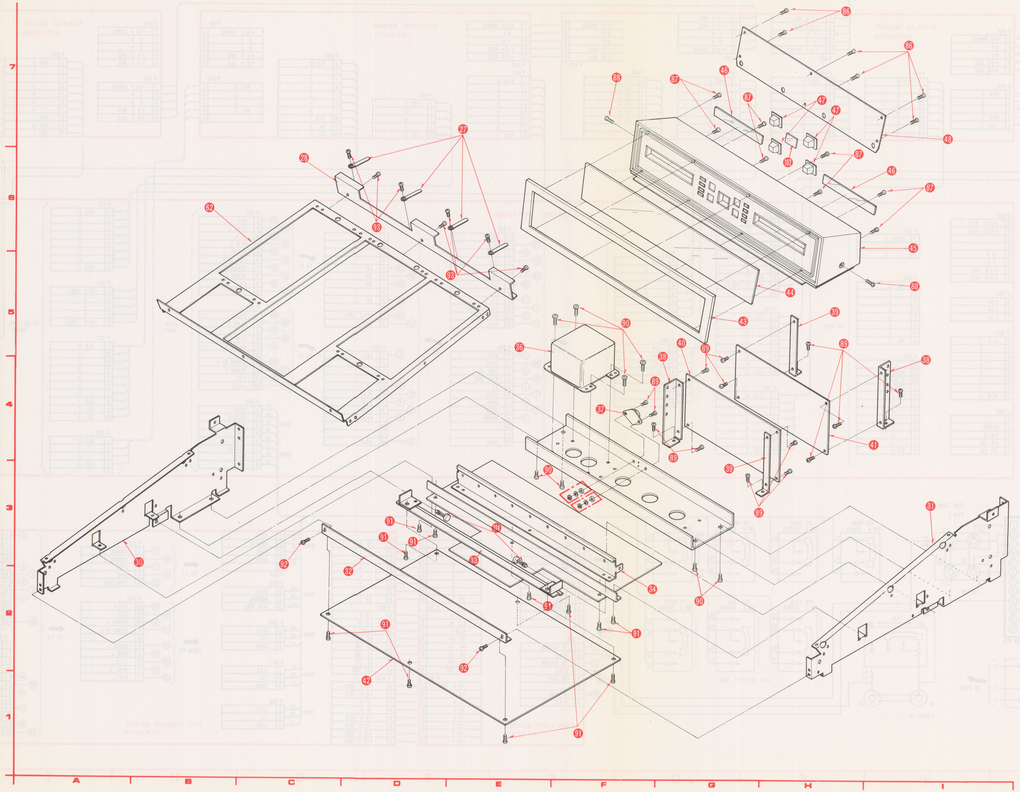
INTERCONNECTION SCHEMATIC DIAGRAM



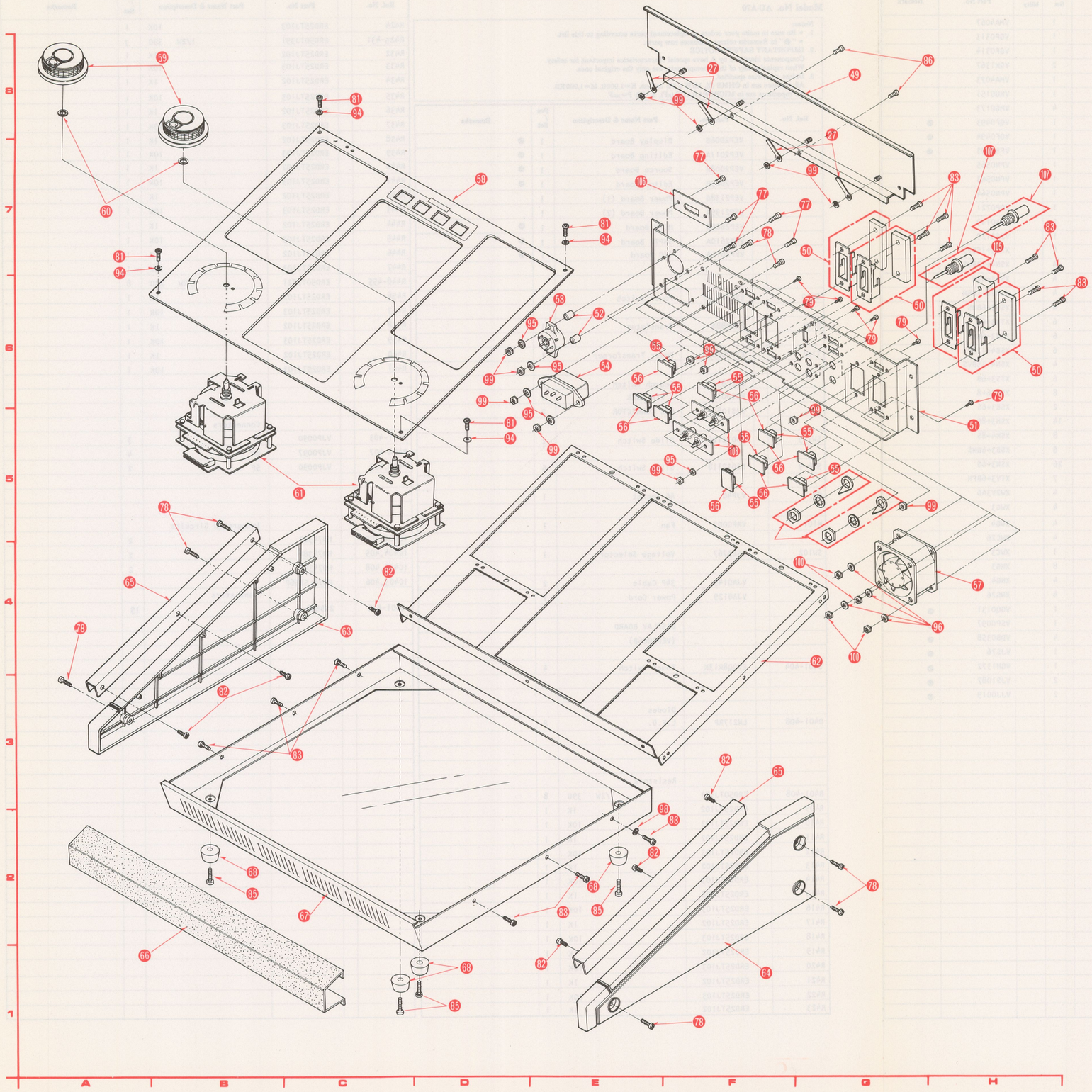
EXPLODED VIEWS ❶ *Chassis Frame Section-(1)*



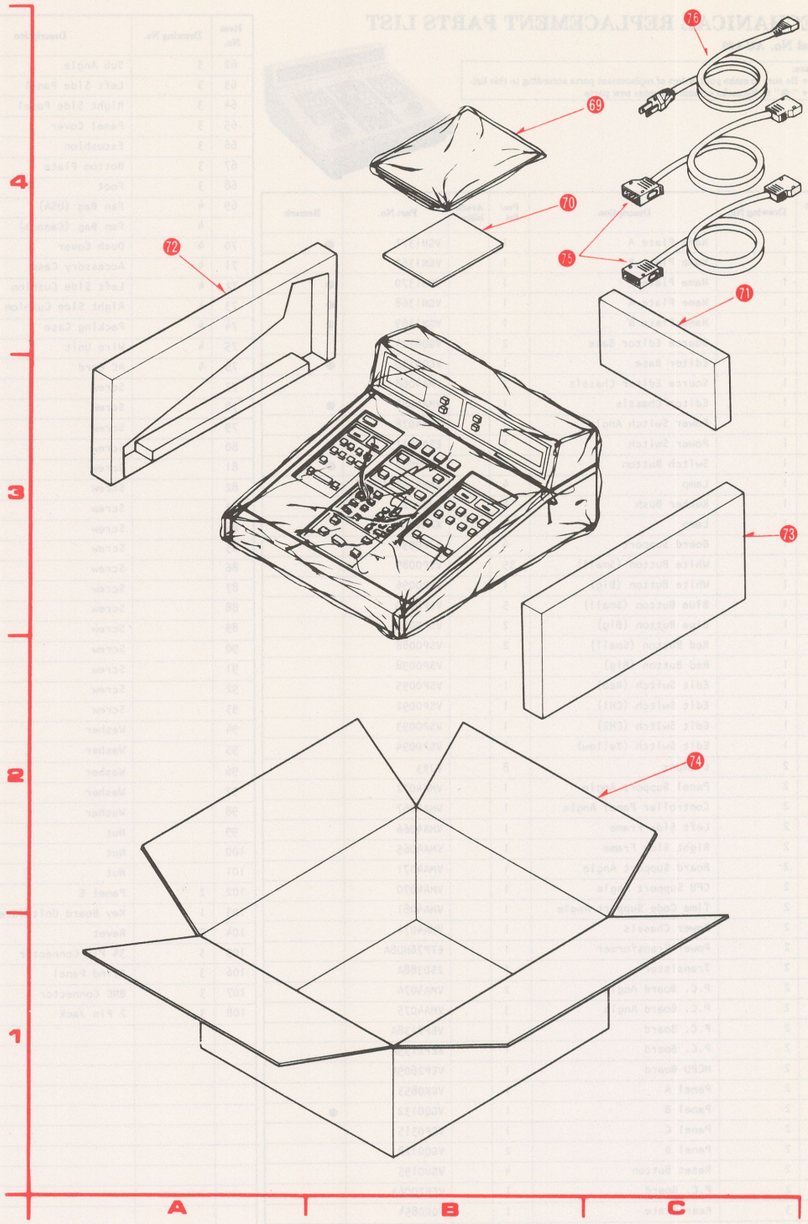
❷ *Chassis Frame Section-(2)*



3 Casing Parts Section



4 Packing Parts Section



MECHANICAL REPLACEMENT PARTS LIST

Model No. AU-A70

Notes:
1. ⊛ Be sure to make your orders of replacement parts according to this list.
   ⊛ "Ⓝ" in Remarks column indicates new parts.

Item No.	Drawing No.	Description	Pcs/ Set	Availa- bility	Part No.	Remark
1	1	Name Plate A	1		VGN1371	Ⓝ
2	1	Name Plate B	1		VGN1363	
3	1	Name Plate	1		VGN1370	Ⓝ
4	1	Name Plate A	1		VGN1368	Ⓝ
5	1	Name Plate B	1		VGN1369	Ⓝ
6	1	Source Editor Base	2		VGQ0124	
7	1	Editor Base	1		VGQ0130	Ⓝ
8	1	Source Editor Chassis	2		VMA4068	
9	1	Editor Chassis	1		VMA4083	Ⓝ
10	1	Power Switch Angle	1		VMA4078	
11	1	Power Switch	1		ESB70119T	
12	1	Switch Button	1		VGU0093	Ⓝ
13	1	Lamp	4		XAMR14P110W	
14	1	Rubber Bush	4		RHG202	
15	1	Lamp	4		XAMV0001	
16	1	Board Support	4		VJF0038	
17	1	White Button (Small)	35		VSP0089	
18	1	White Button (Big)	1		VSP0096	
19	1	Blue Button (Small)	5		VSP0090	
20	1	Blue Button (Big)	2		VSP0091	
21	1	Red Button (Small)	2		VSP0088	
22	1	Red Button (Big)	1		VSP0098	
23	1	Edit Switch (Red)	1		VSP0095	
24	1	Edit Switch (CH1)	1		VSP0092	
25	1	Edit Switch (CH2)	1		VSP0093	
26	1	Edit Switch (Yellow)	1		VSP0094	
27	2	Clamper	8		VJR3	
28	2	Panel Support Angle	1		VMA4072	
29	2	Controller Panel Angle	1		VMA4067	
30	2	Left Side Frame	1		VMA4066	
31	2	Right Side Frame	1		VMA4065	
32	2	Board Support Angle	1		VMA4071	
33	2	CPU Support Angle	1		VMA4070	
34	2	Time Code Support Angle	1		VMA4081	
35	2	Power Chassis	1		VMA4074	
36	2	Power Transformer	1		ETP76HU8A	
37	2	Transistor	1		2SD388A	
38	2	P.C. Board Angle	2		VMA4076	
39	2	P.C. Board Angle	3		VMA4075	
40	2	P.C. Board	1		VEP2138A	
41	2	P.C. Board	1		VEP2139A	
42	2	MCPU Board	1		VEP2609A	
43	2	Panel A	1		VGK0853	
44	2	Panel B	1		VGQ0132	Ⓝ
45	2	Panel C	1		VGP0315	
46	2	Panel D	2		VGQ0128	
47	2	Reset Button	4		VGU0195	
48	2	P.C. Board	1		VEP2006A	
49	3	Rear Plate	1		VGK0854	
50	3	34 Pin Wire Unit	3		VJP62	Ⓝ
51	3	Jack Angle	1		VMA4077	
52	3	Spacer	2		VMS1644	
53	3	Voltage Change SW	1		ESE3767	
54	3	AC Socket	1		VJP40	
55	3	Switch	3		ESD32126	
56	3	Switch P.C. Board	9		VJB2010	
57	3	Fan	1		VRF0007	
58	3	Operation Angle	1		VGK0853	Ⓝ
59	3	T Knob	2		RBM380ZB	
60	3	Knob Spring	2		VMB0689	
61	3	Search SW	2		ESE283	
62	3	Sub Angle	1		VMA4067	
63	3	Left Side Panel	1		VGP0313	
64	3	Right Side Panel	1		VGP0314	
65	3	Panel Cover	2		VGN1367	
66	3	Escushion	1		VMA4073	
67	3	Bottom Plate	1		VKU0151	
68	3	Foot	4		VMG0173	
69	4	Fan Bag (USA)	1		VQF0493	Ⓝ
	4	Fan Bag (Canada)	1		VQF0494	Ⓝ
70	4	Dush Cover	1		VFB0003	Ⓝ
71	4	Accessory Case	1		VPN0565	
72	4	Left Side Cushion	1		VPN0563	
73	4	Right Side Cushion	1		VPN0564	
74	4	Packing Case	1		VGP0721	
75	4	Wire Unit	2		VJA0149	
76	4	AC Cord	1		VJA0129	
77		Screw	4		XSN3+15BVS	
78		Screw	4		XSN4+12BVS	
79		Screw	4		XSN2+4BN	
80		Screw	4		XSN26+12BN	
81		Screw	4		XSN3+6BNS	
82		Screw	6		XTN3+6B	
83		Screw	6		XSN3+6BVS	
84		Screw	6		XSB4+12BVS	
85		Screw	4		XSN4+15BVS	
86		Screw	6		XTS3+6B	
87		Screw	8		XSN26+8	
88		Screw	2		XSB3+6S	
89		Screw	14		XSN3+8S	
90		Screw	8		XSN4+8S	
91		Screw	8		XSB3+6BNS	
92		Screw	26		XSN3+6S	
93		Screw	7		XTV3+6BFN	
94		Washer	4		XW2V3A6	
95		Washer	4		XWG3	
96		Washer	4		XWG4	
97		Washer	4		XWC26	
98		Washer	1		XWC3	
99		Nut	8		XNG3	
100		Nut	4		XNG4	
101		Nut	4		XNG26	
102	2	Panel E	1		VGQ0131	Ⓝ
103	1	Key Board Unit (Gray)	1		VSP0097	Ⓝ
104	2	Revet	4		VDB0358	Ⓝ
105	3	34 Pin Connector	1		VJS76	Ⓝ
106	3	Blind Panel	1		VGN1372	Ⓝ
107	3	BNC Connector	2		VJS1087	Ⓝ
108	3	2 Pin Jack	2		VJJ0019	Ⓝ

ELECTRICAL REPLACEMENT PARTS LIST

Model No. AU-A70

Notes:
1. ⊛ Be sure to make your orders of replacement parts according to this list.
   ⊛ "Ⓝ" in Remarks column indicates new parts.
2. IMPORTANT SAFETY NOTICE
   Components identified by ⚠ have special characteristics important for safety.
   When replacing any of these components, use only the original ones.
3. Unless otherwise specified,
   All resistors are in OHMS (Ω), 1/8W ± 5% carbon. K=1,000Ω, M=1,000KΩ.
   All capacitors are in MICROFARADS (μF), ± 10% P=μμF.

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
	VEP2006B	Display Board	1	Ⓝ
	VEP2011A	Editing Board	1	Ⓝ
	VEP2008B	Source Board	1	Ⓝ
	VEP2009B	Editor Board	1	Ⓝ
	VEP2138A	Power Board (1)	1	
	VEP2139A	Power Board (2)	1	
	VEP2609B	MCPU Board	1	Ⓝ
	VEP2610A	SMPTE Board	1	Ⓝ
	VEP2611A	I/O Board	1	Ⓝ
SW10	ESB70119T	Power Switch	1	
Q101	2SD388A	Transistor	1	
T101	ETP76HU8A	Power Transformer	1	
	ESE283	Search Switch	2	
	VJJ0019	2 Pin Jack	2	
	VJS1087	BNC CONNECTOR	2	
SW1-3	ESD32126	Slide Switch	2	
SW4-9	ESD32118	Slide Switch	6	
P4	VJP40	AC Socket	1	
M101	VRF0007	Fan	1	
SW102	ESE3767	Voltage Selector	1	
	VJA0149	34P Cable	2	
	VJA0129	Power Cord	1	
		DISPLAY BOARD		
		(VEP2006B)		
S401-404	EVQQ8R13K	Touch Switch	4	
		Diodes		
D401-408	LN217RP	L.E.D.	8	
		Resistors		
R401-408	ERD50TJ391	1/2W 390	8	
R409	ERD25TJ102	1K	1	
R410	ERD25TJ103	10K	1	
R411	ERD25TJ102	1K	1	
R412	ERD25TJ103	10K	1	
R413	ERD25TJ102	1K	1	
R414	ERD25TJ103	10K	1	
R415	ERD25TJ102	1K	1	
R416	ERD25TJ103	10K	1	
R417	ERD25TJ102	1K	1	
R418	ERD25TJ103	10K	1	
R419	ERD25TJ102	1K	1	
R420	ERD25TJ103	10K	1	
R421	ERD25TJ102	1K	1	
R422	ERD25TJ103	10K	1	
R423	ERD25TJ102	1K	1	
R424	ERD25TJ103	10K	1	
R425-431	ERD50TJ391	1/2W 390	7	
R432	ERD25TJ102	1K	1	
R433	ERD25TJ103	10K	1	
R434	ERD25TJ102	1K	1	
R435	ERD25TJ103	10K	1	
R436	ERD25TJ102	1K	1	
R437	ERD25TJ103	10K	1	
R438	ERD25TJ102	1K	1	
R439	ERD25TJ103	10K	1	
R440	ERD25TJ102	1K	1	
R441	ERD25TJ103	10K	1	
R442	ERD25TJ102	1K	1	
R443	ERD25TJ103	10K	1	
R444	ERD25TJ102	1K	1	
R445	ERD25TJ103	10K	1	
R446	ERD25TJ102	1K	1	
R447	ERD25TJ103	10K	1	
R448-455	ERD50TJ221	1/2W 220	8	
R456	ERD25TJ102	1K	1	
R457	ERD25TJ103	10K	1	
R458	ERD25TJ102	1K	1	
R459	ERD25TJ103	10K	1	
R460	ERD25TJ102	1K	1	
R461	ERD25TJ103	10K	1	
		Connectors		
P401-403	VJP0090	5P	3	
P404-407	VJP0097	8P	4	
P408,409	VJP0090	5P	2	
		Integrated Circuits		
IC401,402	HD7438P		2	
IC404,405	HD7438P		2	
IC407,408	HD7438P		2	
IC403,406	HD74LS156P		2	
		Transistors		
Q401-419	2SB644-Q		19	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			EDITING BOARD		
			(VEP2011A)		
			Connectors		
P501,502		VJP0090	5P	2	
P503		VJP0097	8P	1	
P504		VJP0090	5P	1	
P505		VJP0091	10P	1	
P506		VJP0090	5P	1	
			Integrated Circuits		
IC501,502		HD75452P		2	
			Transistors		
Q501,502		2SB644-Q		2	
			Switches		
S502		VSP0092	Lamp Switch	1	
S503		VSP0093	Lamp Switch	1	
S504		VSP0094	Lamp Switch	1	
S505-507		VSP0089		3	
S508		VSP0096		1	
S509		VSP0089		1	
S510-512		VSP0089		3	
S513		VSP0098		1	
S514		VSP0089		1	
S515		VSP0090		1	
S516-523		VSP0089		8	
S524		VSP0097		1	Ⓝ
			Diodes		
D501-514		LN217RPH	L.E.D.	14	
			Resistors		
R501-507		ERD50TJ101	1/2W 100	7	
R508-510		ERD25TJ102	1K	3	
R509-511		ERD25TJ103	10K	3	
		ERD18T0B	10mm Jumper Resistor	16	
		VJS1138	IC Socket 16P	1	
		VGQ0127	LED Spacer	9	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			SOURCE BOARD		
			(VEP2008B)		
			Connectors		
P601,602		VJP0090	5P	2	
P603,604		VJP0091	10P	2	
P605		VJP0089	3P	1	
			Switches		
S601		VSP0088		1	
S602-604		VSP0089		3	
S605,606		VSP0090		2	
S607		VSP0096		1	
S608,609		VSP0089		2	
S610-612		VSP0089		3	
			Transistors		
Q601,602		2SB644		2	
			Diodes		
D601-609		LN217RPH	L.E.D.	9	
			Resistors		
R601-608		ERD50TJ101	1/2W 100	8	
R609		ERD25TJ102	1K	1	
R610		ERD25TJ103	10K	1	
R611		ERD25TJ102	1K	1	
R612		ERD25TJ103	10K	1	
PL601,602		XAMR14P110W	Lamp	2	
TP601-604		TEL312	GT Pin	4	
		ERD18T0B	10mm Jumper Resistor	5	
		VJF0038	Base Plate Supporter	2	
		RHG202	Bush	2	
		VGQ0127	LED Spacer	6	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			EDITOR BOARD		
			(VEP2009B)		
			Connectors		
P701,702		VJP0090	5P	2	
P703,704		VJP0091	10P	2	
P705		VJP0089	3P	1	
			Transistors		
Q701		2SB644-Q		1	
			Switches		
S701		VSP0088		1	
S702-707		VSP0089		6	
S708,709		VSP0090		2	
S710		VSP0091		1	
S711-715		VSP0089		5	
			Diodes		
D701-708		LN217RPH	L.E.D.	8	
			Resistors		
R701-708		ERD50TJ101	1/2W 100	8	
R709		ERD25TJ102	1K	1	
R710		ERD25TJ103	10K	1	
PL701,702		XAMR14P110W	Lamp	2	
TP701-704		TEL312		4	
		ERD18T0B	10mm Jumper Resistor	3	
		VJF0038	Base Plate Supporter	2	
		VGQ0127	LED Spacer	7	
		RHG202	Bush	2	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			MCPU BOARD (VEP2609B)		
			Integrated Circuits		
IC301-304		HD7406P		4	Ⓝ
IC305		µPD8255AC		1	
IC307-310		µPB8212C		4	Ⓝ
IC312,313		HD7438P		2	Ⓝ
IC314-316		HD74LS175P		3	Ⓝ
IC318		HD75452P		1	Ⓝ
IC319		µPD8255AC		1	Ⓝ
IC320-323		HD7406P		4	Ⓝ
IC324,325		HD7493AP		2	Ⓝ
IC326		HD74LS107P		1	Ⓝ
IC327		HD74LS155P		1	Ⓝ
IC328		HD74LS10P		1	Ⓝ
IC329		HD74LS04P		1	Ⓝ
IC330		HD74155P		1	Ⓝ
IC331		HD74LS08P		1	Ⓝ
IC332,333		HD7490AP		2	Ⓝ
IC334,335		HD7493AP		2	Ⓝ
IC336,337		HD74LS03P		2	Ⓝ
IC338		HD7493AP		1	Ⓝ
IC339		HD74LS00P		1	Ⓝ
IC340		HD74LS04P		1	Ⓝ
IC341		HD74LS74AP		1	Ⓝ
IC342		HD74LS00P		1	Ⓝ
IC343		HD74LS04P		1	Ⓝ
IC344		HD74LS155P		1	Ⓝ
IC345		µPB8224C		1	Ⓝ
IC346		µPD8080AFC	MCPU	1	
IC347		µPB8228C		1	
IC348,349		M5L2101AP		2	
IC350		HD74LS155P		1	Ⓝ
IC351,352		HD74LS04P		2	Ⓝ
IC353		HD74LS155P		1	Ⓝ
IC354		HD74LS04P		1	Ⓝ
IC356,357		HD74LS155P		2	Ⓝ
IC358		µPD8255AC		1	Ⓝ
IC359		VS10008		1	
IC360		VS10009		1	
IC361		VS100010		1	Ⓝ
IC362		VS100011		1	Ⓝ
IC363		VS100012		1	Ⓝ
IC364		VS100013		1	Ⓝ
IC365		µPD8255AC		1	Ⓝ
IC367		µPD4069C		1	
IC368		µPD8253C		1	Ⓝ
IC369		µPD8255AC		1	
IC370-372		µPD4049C		3	
IC301-304		VJS1139	IC Socket 14P	4	Ⓝ
IC305		VJS1134	40P	1	Ⓝ
IC307-310		VJS1136	24P	4	Ⓝ
IC312,313		VJS1139	14P	2	Ⓝ
IC318		VJS1138	16P	1	Ⓝ
IC319		VJS1134	40P	1	Ⓝ
IC320-323		VJS1139	14P	4	Ⓝ
IC345		VJS1138	16P	1	Ⓝ
IC346		VJS1134	40P	1	Ⓝ
IC347		VJS1135	28P	1	Ⓝ
IC348,349		VJS1137	22P	2	Ⓝ
IC358		VJS1134	40P	1	Ⓝ
IC359-364		VJS1135	28P	6	Ⓝ
IC365		VJS1134	40P	1	Ⓝ
IC367		VJS1139	14P	1	Ⓝ
IC368		VJS1136	24P	1	Ⓝ
IC369		VJS1134	40P	1	Ⓝ
IC370-372		VJS1138	16P	3	Ⓝ

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Capacitors		
C301	ECEA1H3R3	Electrolytic 50V 1	1	
C302	ECEA1CS100	Electrolytic 16V 10	1	
C303	ECEA1ES100	Electrolytic 25V 10	1	
C304	ECEA1CS100	Electrolytic 16V 10	1	
C305-308	ECKW1H103PF	Ceramic 50V 0.01	4	
C310,311	ECKW1H102PF	Ceramic 50V 0.001	2	
C312-355	ECKW1H103PF	Ceramic 50V 0.01	44	
C356-358	ECQV05124JZ	Ceramic 50V 0.12	3	
		Resistors		
R301	ERD25TJ103	10K	1	
R302	ERD25TJ104	100K	1	
R303	ERD25TJ474	470K	1	
R304	ERD25TJ103	10K	1	
R305	ERD25TJ104	100K	1	
R306	ERD25TJ474	470K	1	
R307	ERD25TJ103	10K	1	
R308	ERD25TJ104	100K	1	
R309	ERD25TJ474	470K	1	
R310,318	ERD25TJ222	2.2K	2	
R311-326	ERD25TJ103	10K	16	
R328-330	ERD25TJ103	10K	3	
R331	ERD25TJ103	10K	1	
R332	ERD25TJ222	2.2K	1	
R334-336	ERD25TJ222	2.2K	3	
R338,339	ERD25TJ333	33K	2	
R340,341	ERD25TJ103	10K	2	
R343-345	ERD25TJ103	10K	3	
RA301,302	EXBP88104K		2	
RA303,304	EXBP89103K		2	
RA305	EXBP810103K		1	
RA306,307	EXBP88103K		2	
RA308	EXBP84103K		1	
RA309	EXBP88103K		1	
		Connectors		
P301-303	VJP0097	8P	3	
P304,305	VJP1069	12P	2	
P306	VJP0097	8P	1	
P307	VJP0090	5P	1	
P308	VJP0097	8P	1	
P309-311	VJP0091	10P	3	
P312	VJP0097	8P	1	
P313,314	VJP0091	10P	2	
P315	VJP0090	5P	1	
P316	VJP0089	3P	1	
P317,318	VJP0090	5P	2	
P319	VJP0097	8P	1	
P321-322	VJP0097	8P	2	
P323-325	VJP0091	10P	3	
P326	VJP0097	8P	1	
P327	VJP0097	8P	1	
P328	VJP0089	3P	1	
P329	VJP0090	5P	1	
P330	VJP0097	8P	1	
P331	VJP0089	3P	1	
P332-335	VJP1069	12P	4	
P336	VJP0091	10P	1	
X301	VSX0067	Crystal 18MHz	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		POWER BOARD (1)		
		(VEP2138A)		
F101	XBA2F20NM100	250V 2A	1	Ⓝ
F102	XBA1F03NU14A	125V 300mA	1	Ⓝ
F103	XBA1F60NU14A	125V 6A	1	
F104	XBA1F20NU14A	125V 2A	1	
F105,106	XBA1F10NU14A	125V 1A	1	
T102	VTQ0006	800μH Line Filter	1	Ⓝ
		Diodes		
D101-104	30DC1R		4	Ⓝ
D105	10DC1N		1	
D106	10DC1R		1	
D107	10DC1N		1	
D108	10DC1R		1	
D109	10DC1N		1	
D110	10DC1R		1	
		Capacitors		
C101-116	ECKW1H103PF	Ceramic 50V 0.01	16	
C117	ECQU1A473ME	Mylar 0.047	1	
R101	ERC12ZGK275	1/2W 2.7M	1	
	XSM3+6FUS	M3 Pan Head Machine Screws	4	
	XWC38FN	Toothed Lock Washer	2	
	ERD18T0B	10 mm Jumper Resistor	3	
	VJH24	Check Terminal	26	
	TJC6319	Fuse Holder	12	
		POWER BOARD (2)		
		(VEP2139A)		
		Transistors		
Q202	2SD389		1	
Q203	2SA886		1	
Q204	2SA719		1	
		Integrated Circuits		
IC201,202	μPC141C		2	
IC203	μPC14312H		1	
IC204	μPC14305H		1	
		Capacitors		
C201	ECET16R472SW	Electrolytic 16V 4700	1	
C202	ECKD1H271KB	Ceramic 50V 270P	1	
C204	ECCD1H680KB	Ceramic 50V 68P	1	
C205	ECEA50ZR1	Electrolytic 50V 0.1	1	
C206	ECEA1CS471	Electrolytic 16V 470	1	
C207	ECET25R222SW	Electrolytic 25V 2200	1	
C208	ECKD1H271KB	Ceramic 50V 270P	1	
C209	ECCD1H680KB	Ceramic 50V 68P	1	
C210	ECEA50ZR1	Electrolytic 50V 0.1	1	
C211	ECEA1ES331	Electrolytic 25V 330	1	
C212	ECER25T222SW	Electrolytic 25V 2200	1	
C213	ECEA1ES331	Electrolytic 25V 330	1	
C214	ECET16R2200	Electrolytic 16V 2200	1	
C215	ECEA1CS471	Electrolytic 16V 470	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Resistors		
R201		ERD25TJ151	150	1	
R202		ERD25TJ271	270	1	
R203		ERD25TJ122	1.2K	1	
R204		ERF5AKR18	5W 0.18	1	
R205		ERD25TJ682	6.8K	1	
R206		EVLS6AA00B13	Variable 1K	1	
R207		ERD25TJ332	3.3K	1	
R208,209		ERD25TJ151	150	2	
R210		ERD25TJ182	1.8K	1	
R211		ERF3AK1R0	3W 1.0	1	
R212		ERD25TJ103	10K	1	
R213		EVLS6AA00B13	Variable 1K	1	
R214		ERD25TJ152	1.5K	1	
R215		ERQ12HJ3R9	1.2W 3.9	1	
			Connectors		
P201,202		VJP0090	5P	2	
P203-206		VJP0097	8P	4	
		ERD18T0B	10 mm Jumper Resistor	3	
		N018	Mica Board	3	
		N0120A	Insulation Collar		
		TEL312	GT Pin	6	
		VJH24	Check Terminal	11	
		VMA4076	TR Attachment Plate	1	
		VMA4075	Attachment Angle	1	
		XSN3+6S	M3 Pan Head Machine Screws	4	
		XWC3B	Toothed Lock Washer	1	
			SMPTE BOARD (K)		
			(VEP2610A)		
			Integrated Circuits		
IC902		HD74LS00P		1	
IC904		μPC451C		1	
IC905		HD74LS20P		1	Ⓝ
IC906		HD7493AP		1	
IC907-909		HD74LS107P		3	
IC910		HD74LS04P		1	
IC911-914		HD74LS00P		4	
IC915		HD74LS107P		1	
IC916		HD74LS123P		1	
IC917,918		HD74LS95BP		2	Ⓝ
IC919		AN6342		1	
IC920		F3351-2DC		1	
IC921,922		μPD8255AC-5		2	
IC923		HD7493AP		1	
IC924		F3351-2DC		1	Ⓝ
IC925		HD74LS00P		1	
IC926,927		HD74LS95BP		2	
IC928		HD74LS04P		1	
IC929		HD74LS10P		1	
IC930		HD74LS00P		1	
IC931		HD74LS107P		1	
IC932		μPC177C		1	Ⓝ
IC933		μPC451C		1	
IC934		HD74LS123P		1	
IC935		μPD4066C		1	
IC936		HD74LS123P		1	
IC937-939		HD7493AP		3	
IC940		HD74LS04P		1	
IC941		HD74LS20P		1	Ⓝ
IC942		HD74LS30P		1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
IC943		HD7493AP		1	
IC944		F3351-2DC		1	Ⓝ
IC945		HD74LS00P		1	
IC946,947		HD74LS95BP		2	Ⓝ
IC948		HD74LS04P		1	
IC949		HD74LS10P		1	
IC950		HD74LS00P		1	
IC951		HD74LS107P		1	
IC952		μPC177C		1	Ⓝ
IC953		μPC451C		1	
IC954		HD74LS123P		1	
IC955		μPD4066C		1	
IC956		HD74LS123P		1	
			SMPTE BOARD		
			(VEP2610A)		
			Cristal		
X901		VSX0060		1	
			Diodes		
D901		MA150		1	
			Transistors		
Q901		2SC1684		1	
Q902		2SA564		1	
Q903		2SC1684		1	
Q904		2SA719		1	
Q905,906		2SA564		1	
Q907		2SC1684		1	
			Resistors		
R901		ERD25TJ103	1/4W 10K	1	
R902		ERD25TJ101	1/4W 100	1	
R903		ERD25TJ103	1/4W 10K	1	
R904		ERD25TJ183	1/4W 18K	1	
R905		ERD25TJ822	1/4W 8.2K	1	
R906		ERD25TJ561	1/4W 560	1	
R907		ERD25TJ750	1/4W 75	1	
R908,909		ERD25TJ103	1/4W 10K	2	
R910		ERD25TJ101	1/4W 100	1	
R911,912		ERD25TJ103	1/4W 10K	2	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R913		ERD25TJ224	1/4W 220K	1	
R914		ERD25TJ103	1/4W 10K	1	
R915		ERD25TJ272	1/4W 2.7K	1	
R916		ERD25TJ682	1/4W 6.8K	1	
R917		ERD18T0B	Jumper resistor 10m/m	1	
R918		ERD25TJ561	1/4W 560	1	
R919,920		ERD25TJ750	1/4W 75	2	
R921-923		ERD25TJ103	1/4W 10K	3	
R924		ERD25TJ563	1/4W 56K	1	
R925,926		ERD25TJ103	1/4W 10K	2	
R927		ERD25TJ561	1/4W 560	1	
R928		ERD25TJ101	1/4W 100	1	
R929		ERD25TJ104	1/4W 100K	1	
R930		ERD25TJ103	1/4W 10K	1	
R931		ERD25TJ104	1/4W 100K	1	
R932		ERD25TJ223	1/4W 22K	1	
R933		ERD25TJ103	1/4W 10K	1	
R934		ERD25TJ223	1/4W 22K	1	
R935		ERD25TJ103	1/4W 10K	1	
R936		ERD25TJ103	1/4W 10K	1	
R937		ERD25TJ395	1/4W 3.9M	1	
R938		ERD25TJ103	1/4W 10K	1	
R939		ERD25TJ223	1/4W 22K	1	
R940		ERD25TJ104	1/4W 100K	1	
R941		ERD25TJ562	1/4W 5.6K	1	
R942,943		ERD25TJ103	1/4W 10K	2	
R944		ERD25TJ562	1/4W 5.6K	1	
R945		ERD25TJ824	1/4W 820K	1	
R946		ERD25TJ103	1/4W 10K	1	
R947		ERD25TJ223	1/4W 22K	1	
R948		ERD25TJ104	1/4W 100K	1	
R949		ERD25TJ103	1/4W 10K	1	
R950		ERD25TJ223	1/4W 22K	1	
R951		ERD25TJ103	1/4W 10K	1	
R952		ERD25TJ104	1/4W 100K	1	
R953		ERD25TJ393	1/4W 39K	1	
R954		ERD25TJ104	1/4W 100K	1	
R955		ERD25TJ103	1/4W 10K	1	
R956		ERD25TJ104	1/4W 100K	1	
R957		ERD25TJ223	1/4W 22K	1	
R958		ERD25TJ103	1/4W 10K	1	
R959		ERD25TJ223	1/4W 22K	1	
R960,961		ERD25TJ103	1/4W 10K	2	
R962		ERD25TJ395	1/4W 3.9M	1	
R963		ERD25TJ103	1/4W 10K	1	
R964		ERD25TJ223	1/4W 22K	1	
R965		ERD25TJ104	1/4W 100K	1	
R966		ERD25TJ562	1/4W 5.6K	1	
R967,968		ERD25TJ103	1/4W 10K	2	
R969		ERD25TJ562	1/4W 5.6K	1	
R970		ERD25TJ824	1/4W 820K	1	
R971		ERD25TJ103	1/4W 10K	1	
R972		ERD25TJ223	1/4W 22K	1	
R973		ERD25TJ104	1/4W 100K	1	
R974		ERD25TJ103	1/4W 10K	1	
R975		ERD25TJ223	1/4W 22K	1	
R976		ERD25TJ103	1/4W 10K	1	
R978		ERD25TJ104	1/4W 100K	1	
R979		ERD25TJ393	1/4W 39K	1	
			Capacitors		
C901		ECEA1CS100	Electrolytic 16V 10	1	
C902		ECKW1H221K	Ceramic 220P	1	
C903		ECKW1H561K	Ceramic 560P	1	
C904		ECKW1H200K	Ceramic 20P	1	
C905		ECQM1H102KZ	Mylar 0.001	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C906		ECEA50N1	Non polarity 50V 1	1	
C907		ECEA1CS100	Electrolytic 16V 10	1	
C908,909		ECQM1H103KZ	Mylar 0.001	2	
C910		ECEA1HS010	Electrolytic 50V 1	1	
C911		ECQM1H102KZ	Mylar 0.001	1	
C912		ECKW1H101K	Ceramic 100P	1	
C913-919		ECQM1H102KZ	Mylar 0.001	7	
C920		ECEA1CS100	Electrolytic 16V 10	1	
C921		ECEA1HS010	Electrolytic 50V 1	1	
C922		ECEA1CS100	Electrolytic 16V 10	1	
C923		ECKW1H271K	Ceramic 270P	1	
C924		ECQM1H222KZ	Mylar 0.0022	1	
C925		ECQM1H102KZ	Mylar 0.001	1	
C926		ECQM1H333KZ	Mylar 0.033	1	
C927,928		ECKW1H271K	Ceramic 270P	2	
C929		ECQM1H102KZ	Mylar 0.001	1	
C930		ECKW1H271K	Ceramic 270P	1	
C931,932		ECEA1CS100	Electrolytic 16V 10	2	
C933		ECQM1H102KZ	Mylar 0.001	1	
C934		ECEA1CS100	Electrolytic 16V 10	1	
C935		ECEA1HS010	Electrolytic 50V 1	1	
C936		ECKW1H271K	Ceramic 270P	1	
C937		ECQM1H222KZ	Mylar 0.0022	1	
C938		ECQM1H102KZ	Mylar 0.001	1	
C939		ECQM1H333KZ	Mylar 0.033	1	
C940,941		ECKW1H271K	Ceramic 270P	2	
C942		ECQM1H102KZ	Mylar 0.001	1	
C943		ECKW1H271K	Ceramic 270P	1	
C944,945		ECEA1CS100	Electrolytic 16V 10	2	
C946		ECQM1H103KZ	Mylar 0.01	1	
C947		ECEA1ES100	Electrolytic 25V 10	1	
C948-960		ECQM1H103KZ	Mylar 0.01	13	
C961		ECEA1CS100	Electrolytic 16V 10	1	
C962		ECQM1H102KZ	Mylar 0.001	1	
C963		ECQM1H103KZ	Mylar 0.01	1	
C964,965		ECEA1CS330	Electrolytic 16V 33	2	
C966,967		ECQM1H103KZ	Mylar 0.01	2	
			Connectors		
P901		VJP0090	5P	1	
P902		VJP0089	3P	1	
P903-906		VJP0097	8P	4	
			Integrated Circuits		
IC920		VJS1135	28P	1	
IC921,922		VJS1134	40P	2	
IC924		VJS1135	28P	1	
IC944		VJS1135	28P	1	
			Switch		
SW901		VSS0049		1	⊗

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			I/O BOARD K (VEP2611A)		
			Integrated Circuits		
IC801-804		HD7406P		4	
IC806		HD7406P		1	
IC807,808		µPD4049C		2	
IC809-811		µPD8255AC-5		3	
IC812		HD74LS03P		1	
IC813		HD74LS00P		1	
IC814		µPD2114LC/D		1	Ⓝ
IC817		µPD2114LC/D		1	Ⓝ
			Resistors		
RA801,802		EXBP84104K	100K	2	Ⓝ
RA803		EXBT47103K	10K	1	Ⓝ
RA804-808		EXBP84103K	10K	5	
			Capacitors		
C801		ECEA1CS100	16V 10	1	
C802		ECEA1ES100	25V 10	1	
C803		ECEA1CS100	16V 10	1	
C804		ECQM1H103KZ	0.01	1	
C805-808		ECQM1H103KZ	0.01	4	
			Connectors		
P801		VJP0091	10P	1	
P802,803		VJP0097	8P	2	
P804		VJP1069	12P	1	
P805		VJP0091	10P	1	
P806-809		VJP0089	3P	4	
P810,811		VJP1069	12P	2	
P812,813		VJP0090	5P	2	
P814-818		VJP0097	8P	5	
			Resistors		
R802-805		ERD25TJ103	10K	4	
R806		ERD25TJ272	2.7K	1	
			Diode		
D801		ERD18T0B		1	

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